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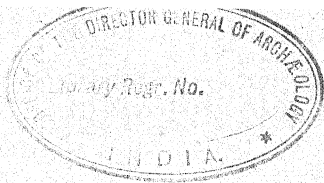
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No. 1

THE MADONNAS OF LUCA DELLA ROBBIA.

[PLATES I-IX.]

The object of this paper is to bring into chronological sequence the Madonnas which may be properly ascribed to Luca della Robbia—a few of which are in bronze or marble, but the great majority in glazed terracotta ware. In some cases we shall have no difficulty in doing this, as the monuments are well authenticated and dated by contemporary documents, but in the majority of cases, where there is no such evidence, the monuments must speak for themselves. In these cases the sufficiency of the similarity to authenticated monuments must be our guide. When this similarity has appeared to me insufficient, I have omitted all mention of the monuments, whether I was able or not to ascribe them to other artists. Even in the present list, I am aware that the attributions must be accepted with different degrees of security, and that there may be other Madonnas, rightly to be ascribed to Luca, that have eluded my search. Nevertheless it is useful to bring such order as one can into a field where no small amount of confusion still exists. I have therefore arranged the Madonnas of Luca della Robbia according to the following periods:

I. 1400-1430. *The Early Period, showing strongly the influence of Ghiberti.*

- (1) The Oxford Medallion of 1428.
- (2) The Spitzer Medallion in the Louvre.
- (3) Medallion of the Nativity, S. Kensington Museum.
- (4-8) Medallion of the Madonna and Child with six angels, Louvre, *etc.*
- (9-10) Unglazed Madonna and Child in a niche, S. Kensington Museum and Beckerath collection, Berlin.

II. 1430-1440. *The Decade of the Choir-gallery reliefs.*

- (11) The stucco relief of the Madonna and Child with four Saints, Louvre.
- (12) Unglazed, pointed arched lunette of the Madonna and Child between two Angels, Berlin Museum.
- (13) Lunette of the Madonna and Child between two Angels, from S. Piero Buoneconsiglio, Museo Nazionale, Florence.
- (14) Rectangular relief of the Madonna and Child seated upon the clouds, Bardini collection, Florence.
- (15) Medallion of the Madonna and Child in a tabernacle, Or San Michele, Florence.
- (16) Group of the Visitation, S. Giovanni fuorcivitas, Pistoia.
- (17) Lunette of the Madonna and Child between two Angels, Via dell' Agnolo, Florence.
- (18) Medallion of the Madonna and Child between two Angels, Museo Nazionale, Florence.
- (19-20) Madonna and Child in a niche, Gavet collection, Paris, and Q. A. Shaw collection, Boston.
- (21) Glazed framed relief of the Madonna and Child, Berlin Museum.

III. 1440-1450. *The Decade of the Bronze Sacristy Doors.*

- (22) Marble Tabernacle at Peretola.
- (23) Stabat Mater on the Crucifixion relief at Impruneta.
- (24) Ascension lunette, Florence Cathedral.
- (25) The Madonna and Child of the Bronze Sacristy Doors, Florence Cathedral.
- (26) The S. Maria del Fiore, Museo Nazionale, Florence.

(27) Large painted relief of the Madonna and Child, Berlin Museum.

(28) The Madonna and Child in the Innocenti Hospital, Florence.

IV. 1450-1460. *The Decade of the Federighi Tomb.*

(29) Lunette representing the Madonna and Child with Saints, S. Domenico, Urbino.

(30) Madonna and Child with an apple, Marquis Carlo Viviani della Robbia collection.

(31) Mater Dolorosa on the Federighi Tomb.

(32-33) Medallions on the Chapel of the Madonna, Impruneta.

(34) Madonna and Child holding a quince, Museo Nazionale, Florence.

(35) Madonna and Child holding an apple or quince, Berlin Museum.

(36) Madonna with draped, standing Child, Museo Nazionale, Florence.

(37-39) Madonna holding in her arms the draped Child, at Berlin Museum, the Louvre, and at Galliciano.

V. 1460-1482. *The Final Period.*

(40) Medallion of the Adoration, Foule collection, Paris.

We shall now consider the above monuments in detail.

I. THE EARLY PERIOD, 1400-1430.

Vasari informs us that Luca's father put him in the workshop of Leonardo di Ser Giovanni. This seems not improbable, for the goldsmith's atelier was the customary training school for artists, and the influence of Leonardo's style may be detected upon more than one of the early works of Luca. But since Leonardo must have been an old man¹ during Luca's childhood, it is natural to assume that the young artist was more strongly influenced by such men as Brunelleschi, Donatello, and especially Ghiberti. The influence of Ghiberti upon Luca della Robbia was observed at the beginning of the present century by Baldi-

¹ MILANESI'S VASARI II, p. 168, note 2, thinks that Leonardo could hardly have lived so long as to have been Luca's master, since he worked on the silver altar at Pistoia at some time between 1355 and 1371.

nucci, and stated to be the consensus of the opinions of the best critics of the time.²

(1) *The Oxford Medallion of 1428* (PLATE I, 1).—In the Ashmolean Museum at Oxford there is a stucco medallion* representing a seated Madonna holding in her lap the Child, who is eating grapes and is attended by two young adoring angels. It was cast apparently from a bronze original, and was all colored to imitate bronze, except that the nimbuses about the heads of the figures were covered with gold. On the reverse side we find incised in a circular band the words *formato adj 17 di ginnaio 1428*. This band encloses a crown, roughly drawn, within which is inscribed *forma . . . nel gabinetto dj Nicholo in gesso*. This stucco medallion, accurately dated, represents evidently a bronze original of the early fifteenth century. But who made it? When we observe the strong resemblance between the face of this Madonna and that of one of the six angels supporting the wreath on Ghiberti's reliquary of S. Zenobius,³ in the Cathedral of Florence, when we can parallel both the attitudes and the swing of the drapery of the adoring angels in Ghiberti's second gates, it is difficult not to see in this monument the handiwork of one who worked according to Ghiberti's methods.

But this is as far as we may push a Ghiberti hypothesis, since in a glazed terracotta monument, which is more clearly in the style of Luca della Robbia, we find still closer resemblances. This monument is the medallion of the Nativity,⁴ in the South Kensington Museum (PLATE I, 2). The Oxford medallion, in its general treatment, reveals also the quiet, reverential spirit of Luca rather than that of the more dramatic Ghiberti. Would it have

² BALDINUCCI, *Opere*, vol. v, p. 217: *L'opere di questo maestro, per molte osservazioni fatte da me in congresso de' primi intendenti di nostra età, fanno tener fermo, che egli si portasse a tel perfezione sotto la scorta e co' precetti di Lorenzo Ghiberti, che in que' tempi attendeva a tal nobilissima facoltà con quella gloria che al mondo è nota.*

*This medallion was presented by Mr. Drury Fortnum, who purchased it of the late Mr. James Jackson Jarves, of Florence. It measures 40° in diameter. It was catalogued by Mr. Fortnum as a Luca della Robbia, and noted by Dr. Bode in the *Jahrb. d. k. p. Kunstsamml.* 1885, p. 184.

³ ALINARI, *photo.* No., 1970.

⁴ J. C. ROBINSON, *Italian Sculpture in the S. Kensington Museum*, No. 5401.

occurred to Ghiberti to pose the Madonna upon the clouds upheld by winged cherubs? These cherub heads which appear here for the first time, are destined to have a long career in the Robbia school of sculpture; the adoring angels also form the motive of all the panels in Luca's bronze sacristy doors, and are prototypes of the singing, dancing angels in his more famous choir-gallery.

(2) *The Spitzer Medallion*.—This medallion, formerly in the Spitzer collection and bought by the Louvre Museum, is another cast or copy from the same original as the Oxford medallion. The Oxford relief measures 40 centimetres in diameter and the Spitzer medallion 34 centimetres. As this is about the amount of shrinkage which terracotta would have shown after being baked, it is fair to presume that the terracotta was derived from the same original; possibly from the mould made by Niccolo in 1428. The Oxford stucco has suffered considerably, but the Louvre terracotta is better preserved. It reveals more distinctly the cherubs which support the clouds, also the bunch of grapes in the Child's hand and the fringe of the Madonna's mantle. But it lacks the nimbus above the heads of the Child and of the adoring angels. As these in the original bronze would be in excessively low relief and brought out only by change of color, they might easily be lost in a terracotta reproduction. It is likely that these nimbus appeared originally in this medallion, and that they have been worn off and the entire monument repainted. Certainly the forked glory on the head of the Child is of no ancient date.

(3) *The Medallion of the Nativity*⁵ in the South Kensington Museum (PLATE I, 2).—This medallion as it stands is somewhat puzzling, for the framework with its conventional bunches of triangularly arranged flowers is suggestive of the work of Andrea della Robbia and is unlike the naturalistic frameworks of

⁵ This medallion was acquired by the museum in 1862 and came from the Palazzo Mozzi, Florence. It measures 1^m 30^s in diameter and is catalogued under number 7752. CAVALLUCCI and MOLINIER, *Les della Robbia*, p. 267, refer it to the atelier of Andrea della Robbia, and J. C. ROBINSON, *Italian Sculpture in the South Kensington Museum*, p. 58, puts it many years after the death of Luca. In my view the composition is an early one of Luca's, and shows the influence of Ghiberti's pictorial style. A similar thatched-roofed shed appears in Ghiberti's panel representing the History of Noah.

Luca, but the central composition is in the style of the elder master and as we believe is to be studied with his early works. We have already noted the resemblance in the pose of the Madonna to that in the Oxford and Spitzer medallions of 1428. We may further observe the general resemblance in style to Ghiberti's Nativity on his first Baptistery gates (1403-1424), and whether or no Vasari's statement be true that Luca was apprenticed to Leonardo⁶ di Ser Giovanni, we may still feel the influence of that goldsmith's manner of representing mountains by comparing this medallion with Leonardo's reliefs⁶ upon the silver-covered altar in the cathedral at Pistoia. Even Ghiberti's second Baptistery gates were begun as early as 1427, in which he carried the pictorial method further than was ever attempted by Luca della Robbia.

(4-8). *The Medallion of the Madonna and Child with six angels* (PLATE I, 3).—I have seen four examples of this composition; one in the Louvre,⁷ and one in the possession of M. Louis Conrajod, Paris; a third in the collection of Herr Adolph von Beckerath, in Berlin, and a fourth in that of Sir Charles Robinson, in London. I am also informed that a fifth exists, in the possession of Lady Eastlake. Although some doubt may be thrown upon the antiquity of these medallions from the existence of so many impressions, we do not regard the composition as a forgery, but refer it to the early period of Luca della Robbia.

That these medallions are casts, and not original sketches, will be seen not only from their identity,⁸ but from the mould marks which are still visible in the example in the Louvre. One can also see clearly that the Louvre specimen has been converted from a circular to a rectangular form.

As in the case of the Oxford medallion, the Madonna is represented as seated upon the clouds, which are upheld by cherubs. The resemblance here to Ghiberti's work is still stronger, for who can examine first the panel on Ghiberti's second gates, representing

⁶ ALINARI, *photo.* No. 20492.

⁷ BODE, *Jahrbuch d. k. p. Kunstsamml.* 1885, p. 184.

CAVALLUCCI and MOLINIER, *Les della Robbia*, p. 281.

⁸ This identity consists not only in detail, but also in size, the medallions measuring 3½ in diameter.

the Creation of Adam and Eve, or that representing the Appearance of the Angels to Abraham and the Sacrifice of Isaac, and then study this medallion without feeling that Ghiberti might have been the author of it? But in spite of this resemblance of manner to Ghiberti, the spirit is rather that of Luca. The feeling revealed here is tender, lovely, beautiful, devotional. Is this the quality of Ghiberti's work? We may find, it is true, triplets of angels with swinging drapery, and heads of women not unlike this in Ghiberti's second gates, but the spiritual impression received from this monument is more like that which we receive from the angels in Luca's choir-gallery reliefs.

(9-10). *Unglazed Madonna and Child in a niche*,⁹ *South Kensington Museum* (PLATE I, 4).—If we were to conceive the Madonna of the medallion just described to stand erect and lift the Child in her arms, we should have before us the unglazed relief in the South Kensington Museum. Even the pose of the Child is such as might be assumed by such a change. The group is set in a niche with ribbed conch, suggestive of the shell-topped niches in the borders of Ghiberti's second gates.

A replica of this group is found in the collection of Herr Adolf von Beckerath, Berlin.

II. THE DECADE OF THE CHOIR-GALLERY RELIEFS, 1430-1440.

During the greater part of this decade, Luca was occupied in carving the marble reliefs for the choir-gallery of the Cathedral.¹⁰ From the greater freedom in style and spirit of these reliefs, and from their human interest, we might characterize this period of Luca's career as the Donatello period. The influence of Ghiberti and his earlier masters is, however, strongly felt, and it may be questioned whether Donatello exerted a stronger influence upon Luca than Luca did upon him. Luca's choir-gallery reliefs were begun at least two years before a similar order was given to Donatello. The occasional burst of beauty in the works of Donatello seems to have been the result of external stimuli, while Luca's productions were more uniformly sustained. To this de-

⁹ *Catalogue*, No. 5788-59.

¹⁰ ALINARI, *photos.* 2545-2556.

cade of Luca's life belong the five marble reliefs¹¹ for Giotto's campanile, also the marble reliefs for the altar in the chapel of S. Peter,¹² and in all probability the terracotta medallions of the Apostles¹³ for the Pazzi Chapel at Santa Croce. Luca's individuality now receives full expression.

(11) *The Stucco Relief of the Madonna and child with four Saints, Louvre* (PLATE II, 2).—The stucco relief in the Louvre¹⁴ representing the Madonna and Child with Saints John the Baptist, Francis, Peter and Dominick¹⁵ cannot be far removed in date from the marble reliefs in the Museo Nazionale representing the Liberation and Crucifixion of S. Peter. The influence of Ghiberti in the case of the marble reliefs has been noted by Bode¹⁶ and, in this stucco, this influence is even more strikingly felt, since the Madonna is evidently to be classed with the medallions we have already considered. In the construction of this relief we observe the downward slope of the floor upon which the group are standing, a characteristic which it has in common with the marble reliefs and which indicates that they were to be placed above the level of the spectator's eye. We notice also that S. Peter occupies a prominent position as the type of the complete christianity which S. John the Baptist foreshadows. It may therefore be suggested that this stucco represents one of the panels, or perhaps the central relief, of the altar designed and begun by Luca della Robbia for the chapel of S. Peter in the cathedral of Florence. In this monument and in the two which follow we notice that the Madonna holds the Child to the left. This variation from Luca's usual custom we believe may have occurred more easily in the earlier and experimental period of his work. In his later Madonnas the Child is held to the right.

¹¹ MILANESI'S VASARI, II, p. 169. These were ordered in 1438. See CAVALUCCI, *Santa Maria del Fiore*, II, p. 136.

¹² ALINARI, *photos*. Nos. 2707-2708. These were made in 1438. See RUMOHR, *Italianische Forschungen*, I, p. 363.

¹³ BROGI, *photos*. Nos. 5843-5854 and 5859.

¹⁴ *Museum*, No. B, 48. BODE, *Jahrb. d. k. p. Kunstsamml.* 1885, p. 185.

¹⁵ CAVALLUCCI and MOLINIER, *Les della Robbia*, describe this figure as S. Paul, but he is clad in monastic costume and carries a lily or perhaps a martyr's palm, not a sword.

¹⁶ BODE, *Die Künstlerfamilie della Robbia*, p. 7.

(12) *Unglazed pointed-arched lunette of the Madonna and Child between two angels, Berlin Museum.*¹⁷—The Madonna is here seated upon the clouds as in the medallions of the early period. She wears a turban and a robe which is ruffled about her neck, peculiarities which occur frequently in the women of Ghiberti's second gates, in the shrine of S. Zenobi and in the font in the Baptistry of Siena. But the character of the Child and the playful spirit of the Madonna who is chuckling him under the chin are more suggestive of the influence which Luca at this time may have received from Donatello. Still, the strongest ground for assigning the relief to this decade of Luca's career is to be found in the essential identity of the attendant angels with those which appear on the choir-gallery reliefs.¹⁸

(13) *Lunette of the Madonna and Child between two angels, from S. Piero Buonconsiglio al Mercato Vecchio, Museo Nazionale, Florence*¹⁹ (PLATE II, 1).—This lunette probably dates from the early part of this decade, possibly earlier. It reveals strong Ghiberti influence, especially in the Madonna's hair and drapery and in the general treatment of the attendant angels. We may even notice the influence of earlier masters. The extraordinarily large head of the child reflects the traditions of the Pisan school, and the triangular coronals of the angels are such as we find in the angels of Orcagna's famous tabernacle at Or San Michele, and in the beautiful sculptures which adorn the Porta della Mandorla of the cathedral. Luca uses the same type of coronal in the altar for S. Peter's chapel (1438) and in the tabernacle at Peretola (1442), but these marble angels show already a more advanced type. Here we feel that he is still working in the goldsmith style. The change which marks the choir-gallery sculptures has not yet come.

Before we turn to the consideration of another monument we may observe the manner in which Luca has treated the eyes of

¹⁷ BODE and TSCHUDI, *Beschreibung d. Bildwerke d. christlichen Epoche*, p. 37 and Taf. v. It is illustrated also in the *Jahrb. d. k. p. Kunstsaml.*, 1885, p. 179; in BODE, *Ital. Plastik*, p. 76; *Archivio storico dell' Arte*, II, p. 8.

¹⁸ Compare especially with those in the upper row. See ALINARI, *photos.* 2547 and 2550.

¹⁹ MILANESI'S VASARI, II, p. 175. ALINARI, *photo.* 2778. UMBERTO ROSSI, in *Arch. stor. dell' Arte*, 1893, p. 6.

the Madonna. He has marked with dark blue, in a sketchy manner, the eyebrows and lashes, and the irises with bluish-gray. His ideal of the Madonna was evidently that of a woman with blue eyes. He gives hazel eyes to the Christ in the Resurrection and Ascension reliefs, but from beginning to end his Madonna's eyes are blue.²⁰

(14) *Rectangular relief of the Madonna and Child seated upon the clouds, Bardini collection, Florence (PLATE III).*—The Palazzo Frescobaldi in Florence contained a large number of glazed terracotta monuments of the Robbia school; but this relief, the finest of them all, has now passed into the hands of the well-known Florentine antiquarian and art dealer, Signor Bardini. The throne and footstool of the Madonna consist of clouds, as in the case of the early medallions, and the type is not far removed from that of the Madonna with six angels, but the relief is higher, like that of the apostle medallions of the Pazzi chapel, and the child type is more like that of the bronze sacristy doors (1446-1457) and of the Madonna del Fiore in the Museo Nazionale. In all probability this relief and the Pazzi chapel medallions fall within this decade of Luca's career. The fine color sense which shows itself in much of Luca's work begins here to manifest itself in the beautiful shade of blue which he has selected for the background. He has touched the eyebrows and lashes with lilac and the irises with bluish-gray. Gold has been added above the glaze upon the Madonna's hair and the borders of her robe. It is not the timid Virgin of the S. Piero Buonconsiglio lunette; but, though young, is somewhat more womanly and self-contained.

(15) *The Medallion of the Madonna and Child in a Tabernacle, Or San Michele, Florence.*²¹—This medallion is remarkable in being the only example of highly polychromatic figured sculpture by Luca della Robbia. As I have already published it in this JOURNAL,²² I need not again call attention to its peculiar qualities. But at that time I had not seen the early works of Luca, and consequently was more influenced by the resemblance it bore to his later productions. A more extended survey of Luca's Ma-

²⁰ I have observed only one exception to this rule, the Madonna in the gallery of the Innocenti Hospital. ²¹ BROGI, photo. 4657. MILANESI'S VASARI, II, p. 176.

²² *Amer. Journ. Arch.*, vol. VIII, No. 2, pp. 157-159, and Plate v, fig. 1.

donnas has led me to refer this monument to an earlier date. The general treatment is, it is true, not far removed from that of the Madonna of the Bronze Sacristy doors (1446-1467), but there are indications which link it with the decade we are now considering. Its polychromatic character is no sign of a late date, since the earliest glazed terracotta sculptures of the Renaissance, the four Evangelists with which Brunelleschi adorned the Pazzi Chapel in 1420, were highly colored, like their Gothic prototypes. The sculptural character of the monument links it with Luca's medallions of the apostles in the Pazzi Chapel, but we feel as if in the type of the Madonna, and in the large head of the Child, Luca had not yet wholly freed himself from the influence of his early masters.

(16) *The group representing the Visitation, S. Giovanni fuorcivitas,*²⁵ *Pistoia* (PLATE IV).—This beautiful group has been attributed to Fra Paolino²⁶ a Pistoiese painter who is not known to have worked in sculpture. A more correct appreciation is reached by Cavallucci,²⁷ Gsell Fels²⁸ and Bode,²⁹ who attribute the monument to Andrea della Robbia. In his latest edition of Burckhardt's Cicerone (1893) Bode says: "*Andrea della Robbia's most important work, falsely ascribed to Fra Paolino, is the group of the Visitation in S. Giovanni fuorcivitas in Pistoia, which in nobility of sentiment, beauty of form and skillfulness of arrangement deserves to be called the most perfect group of the Early Renaissance.*"

When I examined this group in the spring of 1892 I noticed that the eyes of both the Virgin and S. Elizabeth had irises of grayish bluê. As I have already observed,³⁰ this is characteristic of Luca's Madonnas, while Andrea's have hazel eyes. An attribution, however, based upon a single characteristic, such as this, would be extremely hazardous. We may substantiate our claim that Luca is the author of this monument by appealing to the general spirit of the monument. From what we know of Andrea's Madonnas in Prato, Pistoia, La Verna, Siena and else-

²⁵ ALINARI, *photo.* 2523. BROGI, *photos.* Nos. 4424, 4425.

²⁶ BANDEKER, *Northern Italy*, 1889, p. 368; MURRAY, *Central Italy*, 1892, p. 125.

²⁷ *Les della Robbia*, p. 243.

²⁸ *Mittel Italien*, 1880, p. 615.

²⁹ *Italienische Plastik*, 1893, p. 80, 81.

³⁰ *Amer. Journ. Arch.*, vol. VIII, No. 2, p. 160, note 25.

where, is there a single one which approximately resembles this in type? And is it likely that even in a moment of inspiration he could have produced "the most perfect group of the Early Renaissance?" We have not far to go in finding parallels, which enable us not only to attribute the group to the elder Luca but to assign it to this decade of his career. If we turn to that one of the choir-gallery reliefs in which is represented a group of maidens²⁹ singing and playing musical instruments, we shall find to the extreme left one whose face is but a younger type of this Madonna, whose hair is arranged in the same way, and whose drapery falls in similar folds. We may also observe in other Madonnas of this decade that the hair is modelled in waving lines³⁰ and is drawn back in a mass so as almost to conceal the ear. At this time also Luca made several Madonnas whose garments show not only the broad band, but even the ruffle³¹ about the neck.

Are not these resemblances strong enough to justify us in bringing this important group into line with the Madonnas of Luca della Robbia?

(17) *The Lunette of the Madonna and Child between two angels, in the Via dell' Agnolo*,³² Florence (PLATE V).—This beautiful relief is in a narrow street in Florence, over the door of a small shop, which was once a chapel connected with S. Pier Maggiore. Vasari mentions it with praise.³³ It is in our view one of the earliest works in which Luca has cut himself loose from his masters and given free expression to his own powers. There are details of treatment which link it with his earlier works. The framework is composed of the same mouldings as those which are used in the lunette from S. Piero Buonconsiglio, and the floral frieze is an improved example of the same general type. Luca was evidently fond of the wild roses which abound in the

²⁹ ALINARI, *photo*. No. 2549.

³⁰ Compare especially the Bardini and the Or San Michele Madonnas.

³¹ Compare the lunette from S. Piero Buonconsiglio and the pointed-arched lunette in the Berlin Museum.

³² ALINARI, *photo*. No. 2511, 2512; BROGI, *photo*. No. 4655.

³³ MILANESI-VASARI, II, p. 175: *E sopra una porta d'una chiesina a San Pier Maggiore, in un mezzo tondo, un' altra Madonna, ed alcuni angeli che sono tenuti bellissimi.*

neighborhood of Florence. His floral frameworks are in striking contrast to the heavy garlands of fruit which occur so frequently in the late products of the Robbia school. The male and female angels carrying vases of Easter lilies are but freer types of his earlier angels, and even wear the coronals. But they are not yet as advanced in style as the candelabra-bearing angels or acolytes³⁴ in the sacristy of the cathedral of Florence (1448).

The Madonna is less a type, more human and lovely than those which preceded. She is still the Queen of Heaven; but this appears not so much from surrounding clouds or attendant angels as from the divine light which seems to emanate from a soul within. The Child is also a future King, blessing his people, and holding up to view a scroll inscribed *EGO SVM LVX MVNDI*. It seems strange that this Madonna does not occur again in Luca's work. Her face perhaps modified his angel type as we see it in the altar for S. Peter's chapel and in the tabernacle at Peretola, but as a Madonna she disappears. After this burst of realistic inspiration, in which he may have portrayed the features of some living woman, he returns to a type more along the old line, and to which he adheres more or less closely in all his later work.³⁵

(18) *Medallion of the Madonna and Child between two Angels*,³⁶ *Musco Nazionale, Florence* (PLATE II, 3).—The monotonous design of the framework and the finish of the relief itself, indicate that some inferior hand had a share in the execution of this medallion. But the central composition is Luca's, and is not very different from the Madonna in the Via dell' Agnolo. His conception of the Madonna has matured. She is less youthful than the Madonnas of the early period, but not so human as the Madonna in the Via dell' Agnolo. Luca seems to have returned to the pro-

³⁴ BROGI, *photos*. No. 4910-4911.

³⁵ On the portal which carries this lunette Bode discovered crossed keys and the letters S. P. M., which he interpreted as the insignia of Pope Martin V, who died in 1431. He inferred that the lunette therefore antedates that year. See *Archivio Storico dell' Arte*, 1889, p. 4. But Umberto Rossi has shown that the insignia belong to the Church S. Pier Maggiore and not to Pope Martin. See *Archivio Storico dell' Arte*, 1893, p. 8, note 1. We are accordingly free to assign the lunette to the decade 1430-1440.

³⁶ ALINARI, *photo*. No. 2767. CAVALLUCCI and MOLINIER, *op. cit.* No. 62.

duction of a type, but the type is not altogether the same as before. It is transfused with a more human quality.

(19) *Glazed Madonna and Child in a niche, Gavet Collection, Paris* (PLATE VI, 1).—Very similar in style and pose to the preceding is the Child in a beautiful relief in the possession of M. Gavet, Paris; but here the Child has both arms around his Mother's neck. The Madonna also holds him in the same manner. There is something very natural and charming about the Madonna's face, and a freshness indicative of Luca's early manner. If it be true that about this time he assisted Ghiberti in the completion of the second Baptistery gates,³⁷ we have a natural explanation of the use of the niche with rounded top. Also the rosettes and floral scroll-work painted upon the border, seem to be contemporary with similar ornament carved upon the Campanile reliefs (1437-1440), and the fringed edge of the drapery with similar fringes in the choir-gallery reliefs.

(20) *Replica of this monument in the possession of Quincy A. Shaw, Boston, U. S. A.*—A replica of the Gavet Madonna is in the possession of Mr. Quincy A. Shaw, of Boston. The Madonna and Child would seem to have been cast from the same mould as that of the Gavet relief, and to have been slightly modified before being baked. This modification consists chiefly in the omission of the drapery which falls around the loins of the Child; but the spirit of the earlier and sharper impression is modified also by a change in the painting of the eyes. In the Gavet Madonna the eyes are rolled to one side, giving a lively and coquettish expression, in comparison with which the Shaw Madonna seems somewhat dull. The background of the niche, though divided by similar horizontal mouldings, is vertically striated by fewer panels, and the ornamental border of the face of the frame has been reduced to white disks in green spandrels in the upper corners.

(21) *Glazed, framed Relief of the Madonna and Child in the Berlin Museum*³⁸ (PLATE VI, 2).—To the same period may be as-

³⁷ See *Frammento Estratto dal Codice Magliabechiano, scritto da un Anonimo*, published by CARL FREY, in his edition of Vasari's *Vita di Lorenzo Ghiberti*, 1886, pp. 63, 68.

³⁸ Photographed by BARDINI, Florence. Illustrated also in BODE, *Ital. Plastik*, 1898, p. 77, and in *Archiv. stor. dell' Arte*, II, p. 8, fig. 1.

signed a youthful Madonna, with the fully draped Child, in the Berlin Museum. Here also the frame is glazed and ornamented by corner disks of blue, and light-green stripes with rounded ends decorate the four faces of the frame. The Child fondles his Mother's face with both hands, while she gazes down upon him with her gray-blue eyes.

III. THE DECADE OF THE BRONZE SACRISTY DOORS, 1440-1450.

Although the contract for the bronze sacristy doors of the cathedral of Florence was not signed until February 28, 1446, and the last two panels were not finished before November, 1467, and though they represent the work of more than one hand,³⁹ nevertheless their importance constitutes them the measure of the workmanship of Luca della Robbia for this decade of his career. This is especially true of the panel of the Madonna and Child which influenced his similar compositions in terracotta.

There are, however, three monuments which must be considered first. These are the Peretola tabernacle, the Crucifixion at Impruneta, and the Ascension at Florence.

(22) *The Marble Tabernacle at Peretola*,⁴⁰ 1441-1443.—In the church of S. Maria at Peretola, near Florence, is a marble tabernacle which once adorned the chapel of S. Luke at S. Maria Nuova, Florence. It is in the form of a portal, with Corinthian pilasters and triangular pediment. In the arched opening are two angels bearing a wreath, which enshrines a bronze relief of the Holy Dove; above them is a Pietà, in which an angel supports the sinking Christ, while the Madonna and S. John are on either hand. The Madonna is here an elderly woman. She presses her left hand to her breast and with the right points to the sinking Christ. It is difficult to see here the same individual whom we have met with before. Perhaps some other and more elderly matron in real life furnished his imagination with the type for this Mater Dolorosa, or he may have adapted it from some traditional source. The three who surround the sinking

³⁹ The panel of S. Gregory is decidedly inferior to all the others, and may have been modelled by Michelozzo or by Maso.

⁴⁰ BROGI, *photo.* 5841, 5841*. CAVALLUCCI, No. 228. MOLINIER, *Une Œuvre inédite de Luca della Robbia*, in the *Gaz. Arch.* 1884, pp. 364-370, pl. 49.

Christ are affected in different degrees, but in none of them do we find that extravagance of grief which soon afterward Donatello represented in the treatment of similar subjects at Padua. From the archives of S. Maria Nuova⁴¹ we ascertain that this tabernacle was made by Luca della Robbia between the years 1441 and 1443.

(23) *The Crucifixion at Impruneta*.⁴²—In a previous article in this JOURNAL,⁴³ I have already published this important relief. On account of its resemblance in sentiment to the Pietà of the Peretola Tabernacle (1441–1443), and in style to the Ascension in the Florence Cathedral (1446), I assigned it to the early portion of this decade. It may be added that the treatment of the angels and of the clouds from which they emerge is the same as that in the circular medallion of the Madonna and Child between two angels, in the Museo Nazionale, which, on other grounds, I have already assigned to the close of the preceding decade. As she stands at the foot of the Cross, this Stabat Mater is human enough to wring her hands in grief, but her face looks up through her sorrow to the compassionate gaze of her crucified Son.

(24) *The Ascension Lunette in the Florence Cathedral*,⁴⁴ 1446.—In the lunette over the second sacristy door of the Florence cathedral is the well known polychromatic relief of the Ascension. The contract,⁴⁵ assigned to Luca della Robbia, on the eleventh of October, 1446, stipulated that it should contain, besides the Ascension of Christ, figures of the eleven Apostles and of the Virgin Mary. Only her face and her uplifted hands appear in the background. It is the same face which we have found at Impruneta, but here is gazing upward in pious adoration towards her risen Son and Lord. But we may observe that at Impruneta she is younger than at Peretola and that here she is younger still. There is apparently no established relation between the ages of the mother and the Son.

⁴¹ Quoted by MOLINIER, *Gaz. Arch.*, 1884, p. 365.

⁴² BROGI, *photo.* No. 9891.

⁴³ *Am. Journ. Arch.*, Vol. VIII, No. 2, p. 169, and plate VIII.

⁴⁴ ALINARI, *photo.* No. 1978. CAVALLUCCI and MOLINIER, *op. cit.* p. 45.

⁴⁵ RUMOHR, *Italianische Forschungen*, II, p. 364, 365. CAVALLUCCI and MOLINIER, *op. cit.* p. 54, note 1.

(25) *The Madonna and Child of the Bronze Sacristy Doors*, 1446–1467 (PLATE VII, 1).—The contract for the doors of both sacristies of the Florence Cathedral was at first given to Donatello as early as March 17, 1417, but as nothing was accomplished a new contract was made February 28, 1446, for the doors of one sacristy and given to Michelozzo di Bartolomeo, Luca della Robbia and Maso di Bartolommeo.⁴⁶ Michelozzo had already executed more than one important monument for Donatello.⁴⁷ Luca della Robbia had also stood in the relation of an executive for Donatello in connection with an altar for the chapel of S. Paul in the cathedral.⁴⁸ Maso died soon after the contract was signed, but his function like that of his successor, Giovanni, seems to have been purely mechanical.⁴⁹

Of these three names, that of Michelozzo appears first, and the contract is referred to as having been signed by his hand.⁵⁰ The long delay also before the doors were finally executed seems to have been due to his absence. When we consider Michelozzo's position as an architect and his experience as a sculptor, not to mention the favor in which he stood with Cosimo de' Medici, we are forced to raise the question, whether he may not have been the designer of these panels, or at least have furnished the models for the most important panels. All that we know from the documents is that in 1465 the doors came to the charge of Luca, and apparently he brought them to completion about two years later. When we examine the doors themselves we can see that the most important panels, the Madonna and the S. John the Baptist, cannot have been designed by Michelozzo, for neither the sentiment nor the execution is his. We have merely to refer to the Madonna and Child on the tomb of Pope John XXIII,⁵¹ made by him⁵² 1426–1429, and to his S. John the Baptist on the silver dosal⁵³ in the Opera del Duomo, which he made in 1452,⁵⁴ in order

⁴⁶ RUMOHR, *Ital. Forsch.* II, p. 365 ff.

⁴⁷ BODE-BURCKHARDT, *Cicerone*, 1893, p. 374.

⁴⁸ This altar was probably never executed.

⁴⁹ RUMOHR, *op. cit.* p. 369.

⁵⁰ RUMOHR, *op. cit.* p. 366.

⁵¹ ALINARI, *photo.* No. 1885. See also BODE, *Denkmäler der Renaissance-Sculptur Toscanas*, 1893, pl. 58.

⁵² BODE-BURCKHARDT, *Cicerone*, ed. 1893, p. 374.

⁵³ ALINARI, *photo.* No. 2572.

⁵⁴ BODE-BURCKHARDT, *op. cit.* p. 373.

to see that the Madonna and the S. John of the sacristy doors are not to be attributed to him. On the other hand, they fall readily into line with the works of Luca, one recalling to our minds the Frescobaldi and the Or San Michele Madonnas, and the other resembling the S. John the Baptist of the tabernacle at Impruneta. In the works of Luca della Robbia we naturally look for the attendant angels on either side.

The Madonna is seated upon a simple bench, such as Luca had employed at Or San Michele, and her mantle is drawn over her head, as is frequently the case with Luca's Madonnas. The slender child is blessing with his right hand and in his left holds a scroll, upon which may have been painted, as in the Urbino lunette, the words EGO SVM LVX MVNDI. The Madonna has a somewhat anxious expression, heightened perhaps by the manner in which the light falls upon her face. But there is also a calm beauty, such as Luca only could give. From analogous Madonnas and other figures executed in terracotta, it is likely that the Madonna's hair, perhaps also the borders of her garment and mantle, were decorated with gold.

The contract for these doors called for a somewhat different and more Gothic result. The figured reliefs were to have been set in tabernacles adorned with inlaid work of gold and silver, and to have been surrounded by borders with designs similarly inlaid. This would have given a brilliancy of effect, which the dull bronze in its dark position now lacks. The contract also directs that the reverse side or back of the doors should be adorned with the same reliefs, but without the surrounding ornamentation.⁵⁵ Rumohr mentions in a note that these sculptures on the reverse of the doors are more beautiful and more worthy of Luca della Robbia than the sculptured figures in front. Unfortunately these sculptures no longer exist *in situ*, and, so far as I am aware, they seem to have escaped the attention of other writers.

(26) *The S. Maria del Fiore of the Museo Nazionale*,⁵⁶ Florence (PLATE VII, 2).—In the National Museum of Florence there is a rectangular relief of the Madonna and Child seated in a garden.

⁵⁵ *Ital. Forsch.* II, p. 372.

⁵⁶ ALINARI, photo. No. 2766. BODE, *Luca della Robbia ed i Suoi Precursori in Firenze*, in *Arch. stor. dell' Arte*, 1889, p. 5.

The flowers which surround the group enable us to christen it S. Maria del Fiore. This conception was doubtless also in the mind of Luca himself, for the group shows a strong resemblance to the Madonna of the sacristy doors in the Cathedral which bore this name. The two reliefs are undoubtedly closely related, for though of different proportions, adapted to a panel of different shape, this Madonna is similarly draped, is seated upon a similar bench, and the Child assumes very nearly the same attitude. Luca's fine color sense is shown in the charming grayish-blue of the background, which composes well with the green rose leaves, the violet bench and the grayish-green of the sloping base. This relief has been reproduced in glazed terracotta by the Cantagalli Company of Florence, in very nearly the colors of the original. Although it loses something from the slight diminution in size and from a too vitreous glaze, it reproduces better than can be done by photograph the spirit of the original.

(27) *Large painted relief of the Madonna and Child in the Berlin Museum*⁵⁷ (PLATE VIII).—When I first saw this beautiful Madonna, it seemed to me almost, but not quite, a work by Luca della Robbia. But, on analyzing my impression, I found that it was chiefly the coloring that was out of analogy with his work. I was particularly struck with the summary linear manner in which the eyebrows are painted and with the yellow irises; but the coloring may have been added by another hand.

In spirit and pose this Madonna is not far removed from the Madonna del Fiore in the Museo Nazionale, and the Child is a type which we meet again at Impruneta. The base of the relief has its angles chamfered off in the same manner as in the Madonna relief in the Innocenti Hospital, and in that with the Child holding a quince in the Museo Nazionale. The ornament upon the Virgin's robe, and its fringe, recall the design figured upon the curtain behind the angels of the Peretola tabernacle. I am inclined, therefore, to attribute it to the last half of this decade.

(28) *Relief of the Madonna and Child in the Innocenti Hospital*,⁵⁸ Florence (PLATE VII, 3).—Similar in some of its details, but differ-

⁵⁷ Photographed for Bardini, Florence. BODE, *Ital. Plastik*, p. 78.

⁵⁸ ALINARI, photo. No. 3181. CAVALLUCCI and MOLINIER, *op. cit.* No. 21.

ent in spirit, is the open-mouthed Madonna in the gallery of the Innocenti Hospital. In her left arm she carries the Child, and with her right hand she is pointing to the blue base on which is inscribed in white, QVIA RESPEXIT DOMINVS HVMILITATEM ANCILLE SVÆ. The Child unfolds a scroll on which is inscribed, EGO SVM LVX MVNDI. The eyes are marked with lilac, hairy brows, lilac upper lashes, pupils and a light shade of lilac is substituted for the usual gray-blue for the irises. The floral ornament of the base recalls a similar motive used on the Peretola tabernacle. It would seem probable that this Madonna was made for S. Maria degli Innocenti shortly after its completion, Feb. 5, 1445.⁵⁹

IV. THE DECADE OF THE FEDERIGHI TOMB, 1450-1460.

The most important monument which Luca executed during this decade is the Tomb of Bishop Benozzo Federighi, now in the Church of S. Francesco di Paola, near Bellosguardo. In its exquisite framework Luca has brought to its highest point the possibilities of enamelled terracotta mosaic, while the tomb itself and the Pietà in three panels of its background evince his matured skill as a sculptor in marble.

(29) *The lunette over the portal of S. Domenico, Urbino.*⁶⁰—In this lunette, whose fractured surface has now been badly restored with white lead, we see a Madonna and Child forming the next link in the series to that at the Innocenti Hospital. She is looking out upon the world in somewhat distracted fashion, hardly conscious of the Child whom she is holding. The Child, as in the preceding relief, exhibits to the world the scroll with the words, EGO SVM LVX MVNDI. To the left are S. Domenick with the lily and S. Thomas Aquinas with an open book, inscribed DE FRVCTV OPERVM TVORVM SATIABITVR TERRA. To the right we find another Dominican saint holding up his hand, and S. Peter Martyr with the palm. This lunette was finished in 1451 or 1452, for we find partial payment made for it to Luca della Robbia, June 28, 1451.⁶¹

⁵⁹ CAVALLUCCI and MOLINIER, *op. cit.* p. 102.

⁶⁰ ALINARI, *photo.* No. 15864. CAVALLUCCI and MOLINIER, *op. cit.* No. 323 and p. 58.

⁶¹ See YRIARTE, *Le Livre de Souvenirs d'un Sculpteur Florentin au XV^e Siècle*, in the *Gazette des Beaux Arts*, 2^e période, p. 143, XXIV. Quoted by CAVALLUCCI and MOLINIER, *op. cit.* pp. 58, 59, note 1.

(30) *The Madonna and Child with an apple, from the collection of Marquis Carlo Viviani della Robbia.*—In Cavallucci and Molinier's work upon the Della Robbia, there is an admirable etching of the Madonna and Child holding an apple (p. 55). Their plate tells us that the relief is in glazed terracotta, and that it came from the collection of the Marquis Carlo Viviani della Robbia, but they do not mention it in their catalogue, and there is no further reference to it in the text. This relief, wherever it may be, is undoubtedly a work by Luca della Robbia, and although the drapery is suggestive of his earlier work, the type of the Child and the face of the Madonna render it probable that it belongs to this decade.

(31) *The Mater Dolorosa on the Federighi Tomb,*⁶² 1455-1456 (PLATE VII, 4).—In the background of the square recess which contains the sarcophagus of Bishop Benozzo Federighi, is a Pietà representing in three panels the Mater Dolorosa, Christ in the tomb and S. John Evangelist. These figures are in marble and in lower relief than is usual with Luca della Robbia, but they are authentic works, attested by documentary evidence and with a certain date (1455-1456).⁶³ As compared with the Pietà on the Peretola tabernacle, we find that beauty rather than intensity of emotion has gained with Luca della Robbia. The Virgin is somewhat younger here, and on her countenance pain is less vividly expressed. Her hands, especially the fingers, have received careful attention.

(32-33) *Medallions of Madonna and Child holding a quince, in the frieze of the chapel of the Madonna at Impruneta.*—In describing elsewhere the Robbia monuments at Impruneta,⁶⁴ I mentioned that the frieze on the outside of the chapel of the Madonna contained two medallions representing the Madonna with the undraped Child holding a quince. These are identical in style and treatment with a rectangular relief in the Museo Nazionale, Florence, which is assigned to Luca della Robbia.⁶⁵

⁶² ALINARI, *photo.* No. 3897. CAVALLUCCI and MOLINIER, *op. cit.* p. 3.

⁶³ GAYE, *Carteggio inedito d'artisti*, I, p. 183. CAVALLUCCI and MOLINIER, *op. cit.* p. 36, note 8.

⁶⁴ *Ann. Jour. Arch.*, vol. VIII, No. 2, pp. 161-170.

⁶⁵ UMBERTO ROSSI in *Arch. stor. dell' Arte*, 1898, p. 7.

(34) *Rectangular relief of Madonna and Child holding a quince, Museo Nazionale, Florence.*⁶⁵—The lack of sharpness in the detail of this relief would seem to indicate that it was made from a mould which had been used before. The object which the Child holds in his hands has more the form of a quince than of the apple; an indication, perhaps, that the significance of the symbol⁶⁷ had been lost. The attribution of this relief to Luca della Robbia may be strengthened by its identity with the medallion reliefs at Impruneta, in the frieze of the Chapel of the Madonna, which enshrines a tabernacle by Luca della Robbia. We have given elsewhere⁶⁸ some reason for assigning this chapel to the period under consideration.

(35) *Rectangular relief of the Madonna and Child holding a quince,*⁶⁹ *Berlin Museum* (PLATE VI, 3).—The glazed relief, in the Berlin Museum, belongs probably to the same period as the preceding. The Child is the same round-faced infant and of proportions more thickly set than Luca was accustomed to give in earlier days. The general pose of the Child is similar to that of the Impruneta medallion. In one hand he also carries a quince or apple, while, as in the medallion of the Museo Nazionale, the forefinger of his right hand is in his mouth. The Madonna has a somewhat timid expression, not unlike that of the Madonna in the Innocenti Hospital.

(36) *Rectangular relief of the Madonna with draped Child, Museo Nazionale,*⁷⁰ *Florence.*—This relief was formerly in the convent of Santa Lucia and later in the Accademia, Florence. The Child is draped in a short tunic, rests his left hand on his mother's breast and puts his right arm around her neck. He is the same round-faced chubby infant, whom we have found at Impruneta, and

⁶⁵ ALINARI, photo. No. 2765. UMBERTO ROSSI in *Arch. stor. dell' Arte*, 1898, p. 7. MARQUAND in *Scribner's Magazine*, Dec. 1893, p. 689. Reproduced in glazed terracotta by the Cantagalli Co., Florence.

⁶⁷ C. E. CLEMENT, *Christian Symbols*, 1886, p. 19 :—"The apple when in the hand of the infant Saviour, signifies the sin in Paradise, which made his coming necessary."

⁶⁸ *Am. Jour. Arch.*, vol. VIII, No. 2, p. 168.

⁶⁹ Photographed by MERTENS & Co., Berlin. *Catalogue* No. 116 M.

⁷⁰ CAVALLUCCI and MOLINIER, *op. cit.*, No. 89. U. ROSSI, *Archiv. stor. dell' Arte*, 1898, p. 8.

the Madonna is also of the same type as that at Impruneta. In the tilting of the head, which appears in these Madonnas, we recognize a practice which occurs frequently in the works of Andrea della Robbia and which may have some connection with a similar and contemporaneous custom on the part of Umbrian artists. It is therefore, probably, one of Luca's latest productions.

(87-89) *Madonna holding in her arms the draped Child, Berlin, Louvre, Gallicano.*—In the Museum of Berlin there is an oval, unglazed medallion of the Madonna holding the draped Child in her arms. Above are two cherub heads, one at either side.⁷¹ The type of this Madonna is not unlike those which we have assigned to this decade. In the Louvre there is a copy⁷² of the same composition, differing very slightly in matters of detail. The modification is especially apparent in the treatment of the hair and in the coloring of the eyes, indicating that the Louvre copy was probably made in the atelier of Andrea della Robbia. There is a third example of the same composition at Gallicano,⁷³ in the open street over a fountain. This would appear also to have come from Andrea's atelier.

V. THE FINAL PERIOD, 1460-1482.

The medallion of the University Council on the façade of Or San Michele, made by Luca della Robbia in 1463,⁷⁴ proves that in his later years his hand had not lost its cunning. There would seem also to be some reason for assigning the beautiful tabernacle in the chapel of the Holy Cross at Impruneta to the final period of Luca's life.⁷⁵ If this be true, Luca's career closes not with a decadence, but with a sustained power of producing the same beautiful forms which give to his earlier works such lasting charm.

⁷¹ This medallion is catalogued No. 116 B and is figured by BODE in *Arch. stor. dell' Arte* II, p. 8, fig. 4.

⁷² *Cat. G.* 726. CAVALLUCCI and MOLINIER, *op. cit.* cat. No. 438.

⁷³ CAVALLUCCI and MOLINIER, *op. cit.* cat. No. 186.

⁷⁴ *Am. Jour. Arch.*, vol. VIII, No. 2, p. 154.

⁷⁵ There is nothing, however, in the arguments I have urged in *Am. Jour. Arch.*, vol. VIII, No. 2, p. 186, to prevent our assigning this tabernacle to the early part of this period, or even a decade earlier still.

(40) *Medallion of the Adoration of the Child, in the possession of M. Foule,*⁷⁶ *Paris* (PLATE IX).—From the fact that the Adoration of the Child appears so frequently in later Robbia products, I was led to attribute to the founder of the school the fine altar with this subject at La Verna.⁷⁷ I nevertheless felt that Luca would have treated with greater simplicity the subordinate figures in the composition, and in all probability would have reversed the position of the Madonna and Child. Such a composition, with every indication of being Luca's handiwork,⁷⁸ I subsequently found in the possession of M. Foule in Paris. This medallion has all the charm of Luca's best work. The four angels, as well as the Virgin, have their eyes concentrated on the child. The Madonna, modelled with the tenderest appreciation, is a living personality, not the inheritance of a dead tradition. She is the same person as the Virgin of the Visitation at Pistoia, but the face here shows a maturer, more spiritual beauty, and the drapery is handled in more masterly fashion. The child is neither the large-headed Gothic Child of the S. Piero Buonconsiglio lunette, nor the long-limbed Child of the Frescobaldi relief, nor the chubby Child of the Impruneta frieze, but one whose proportions are harmonious and well-balanced. The angels, appearing in groups of two and proclaiming the *Gloria in Excelsis Deo*, recall to our minds the angels on the predella of the tabernacle of the Holy Cross at Impruneta.⁷⁹ This relief, therefore, is worthy of being classed with the very best of Luca's works. In the presence of this Madonna, and of the others already noticed, we can say with Dr. Bode: "*The relation of Mother and Child has been learned by listening to nature under the most varied and charming situations and expressed with an appreciation and a sense of the beautiful, sometimes also with a touch of humor, such as no other artist has ever accomplished. Even Raphael's celebrated Madonnas exhibit scarcely a*

⁷⁶ Photographed by Allan Marquand; also to be published by Dr. Bode in the *Denkmäler der Renaissance-Sculptur Toscanas*.

⁷⁷ *Scribner's Magazine*, Dec. 1898, p. 687.

⁷⁸ The frame was obtained from a different source and may be by a later hand.

⁷⁹ *Am. Jour. Arch.*, vol. VIII, No. 2, pl. VI.

single new motive, and in freshness and naiveté are decidedly inferior to Luca's compositions." ⁸⁰

ALLAN MARQUAND.

NOTE.—In the Cluny Museum there is a copy of the Foule medallion, with slight variations, made probably by Andrea della Robbia during his uncle's lifetime. The more schematic position of the angels and the heavier folds of the drapery evince a handiwork of inferior quality to that of Luca. Most of the Robbia reliefs representing the Adoration belong to the school of Andrea. A few, however, may be considered as of the school of Luca. As such we may mention: 1. The central relief of a medallion, the remainder of which is by Giovanni della Robbia, in the Museo Nazionale, Florence. 2. A round-headed relief of the Adoration, with overhead a dove and three angels singing the *Gloria in Excelsis Deo*, Museo Nazionale, Florence. 3. A rectangular relief of the Nativity, in the possession of Mr. Quincy A. Shaw, Boston. 4. A rectangular relief of the Adoration, with six angels, in the possession of Herr Adolf von Beckerath, Berlin.

⁸⁰ *Ital. Plastik*, 1893, pp. 76-77.

SOME UNWARRANTED ASSUMPTIONS IN ARCHÆOLOGY.

Certain classical archæologists seem too much inclined to give a loose rein to the imagination whenever they enter upon the domain of pre-historic archæology. *The American Journal of Archæology*, in a late number (VIII, p. 247), reprints from *The Classical Review* a notice of Murray's *Handbook of Greek Archæology*, written by Professor J. Henry Middleton. I quote from it the following statement: "In the tombs of Ialysos in the island of Rhodes royal scarabs of about 2000 B. C. have been found with Greek pottery of the earliest class, that which is devoid of painted ornament and decorated merely with simple patterns executed in incised lines deeply scratched into the surface of the pottery before firing. Moreover, Mr. Petrie has discovered painted vases of the 'Mycenæ type' in the tombs of Upper Egypt, in conjunction with native objects whose date can safely be fixed between the XV and XII centuries B. C."

The proper date to be assigned to vases of the "Mycenæ type," discovered in Egypt by Mr. Petrie (which he has chosen to designate as "Aegean"), has been made the subject of severe scrutiny by Mr. Cecil Torr (*Classical Review*, March, 1892) and Mr. Cecil Smith (*Ibid.*, Dec., 1892), and it will be unnecessary to consider it here. Whatever authority Professor Middleton may have for his statement in regard to the date of "Greek pottery of the earliest class," it is not to be found in Mr. Murray's *Handbook*, in which can be seen, figured upon Plate I, *Vases of the Primitive Period*, and upon Plate II, *Vases of the Mycenæ Type*. It was the latter class of vases that was discovered in the tombs at Ialysos, and these are duly delineated upon Plate II. Upon his Plate I, *Vases of the Primitive Period*, Mr. Murray gives an example, described in these terms: "Black ware; punctured lines . . . identical in ware, shape and

decoration with other vases in the British Museum, found by M. Naville at Katanah, in Egypt, with flint chips and with scarabs of the XII and XIII dynasties. . . . As to actual date, there is no suggestion beyond what may be extracted from the circumstance. . . . that scarabs of the XII and XIII Egyptian dynasties were found with precisely similar vases. It is true that the presence of scarabs of a particular dynasty does not in Egypt always imply contemporaneousness in the objects found with them; but in this case the finding of flint implements in the same tombs speaks for the high antiquity of these vases. . . . Nevertheless, a date which may hold good in Egypt need not apply to Greece or Italy."

Certainly it is only a prudent reservation that Mr. Murray makes in allowing that a scarab of an early king may possibly be found in Egypt, or in any other country, together with objects of a later date. This would probably be the case if the ruins of my own house should ever be searched by some future antiquary. But for Mr. Murray the "finding of flint implements in the same tombs" with a certain kind of vases implies for them a "high antiquity."

In *Kahun, Gurob and Hawara*, p. 25, Mr. Petrie describes the finding in the town of Kahun, in the Fayum, of some pieces of "black pottery, which bear the chevron pattern, with the alternate spaces filled with rows of dots . . . just what was found by M. Naville with scarabs of the XIII dynasty at Katanah . . . in graves many feet deep, beneath accumulations of the time of Seti I, and hence certainly early. Here it is again found associated with objects of the XII and XIII dynasties, and its date, therefore, is almost beyond question. The difficult point now is to determine whether we are to throw back to such a date the Italian black pottery with chevron pattern and dots so closely like this." Finally Mr. Petrie reaches the conclusion (*Ibid.*, p. 42) that, as such pottery is unknown elsewhere in Egypt, "some Phœnician trader we may suspect of importing such foreign pottery (probably Italian)."

Thus it is evident that both Mr. Murray and Mr. Petrie alike fall back upon M. Naville's discoveries at Katanah to establish their chronology. M. Naville has given a complete account of the circumstances of these discoveries in *Goshen, etc.: Fifth*

Memoir of the Egypt. Explor. Fund, p. 21, and I will quote exactly what he says, and leave the reader to judge of the soundness of the inferences that have been drawn from his words.

Near a little village in the northeast part of the Delta, called Katanah, are three mounds. On the summit of the highest one a black granite sphinx was lying, with a "much erased inscription," which "*seemed to be the name*" of a king of the XIII dynasty. "All around this sphinx I sunk very deep pits; and at a depth of about ten feet I found a few large oval urns containing ashes, pieces of charcoal and bones. Some of these bones were decidedly those of animals, while others *might have been human*. In and around each of these urns I found a number of small pots of black and red earthenware . . . Also roundabout the urns I found a few scarabs, two large bronze knives, and some small flints. The little black and red pots are of an entirely new type; but *the ware* of which they are made exactly resembles what is found at Abydos in tombs of the XII dynasty. The evidence of the scarabs is, however, conclusive, since *one of them* is inscribed with the name of a king of that period . . . I could not discover whether the fragments of bone were human or not. If human, it would be important to know that the dead were sometimes burnt under the XIII dynasty, and not always mummified. This would be a most curious discovery in a country where so much care was taken to preserve the bodies of the dead."

Now, what M. Naville describes here is surely something very different from "finding flint implements in the same tombs" with "precisely similar vases," "identical in ware, shape and decoration" with certain other vases in the British Museum, according to Mr. Murray; or in "graves many feet deep beneath accumulations of the time of Seti I," according to Mr. Petrie. In the first place, it is by no means certain that M. Naville discovered any "graves" or "tombs" at all at Katanah. The presumption is rather the other way; and if there were interments there, the conditions plainly point to their being intrusive burials, not dating from the presumed time of the granite sphinx. It is true that vases of a peculiar type were found, but it was the kind of ware of which they were made, and not their type, which resembled what had been discovered at Abydos in tombs of the

XII dynasty. This is far from their being identical "in ware, shape and decoration." Instead of scarabs of the XII and XIII dynasties having been found, only a single one was discovered. Finally, the "flint implements" turn out to be "some small flints;" but it is well established that in Egypt flint flakes, so far from always betokening "a high antiquity," are found in deposits of every age from prehistoric times down to the Roman period.

M. Naville's discoveries at Katanah seem to be scarcely of sufficient importance to support the superstructure that has been reared upon them. He found there a certain type of little black and red vases; but it neither follows that they were "something earlier than 2,000 B. C.," as Mr. Murray seems inclined to believe; nor is there any warrant for calling their type either Greek or Italian.

Let us return now to Mr. Petrie's discoveries at Kahun. The fragment figured by him in *Kahun, etc.* (Plate xxvii, Fig. 202), ornamented with a pattern of long chevrons made up of dots alternating with plain triangles, looks very unlike the familiar "wolf-tooth" pattern, consisting of chevrons of straight incised lines characteristic of the Early Iron Age in Europe, such as are found in cemeteries both in North and in South Italy, of which a specimen is given by Mr. Murray upon his Plate i. So, too, Mr. Petrie has figured in *Kahun, etc.* (Plate i, No. 20), another example of what he calls "black ware." "This," he says, "was also found by M. Naville at Katanah, deep down in burials which could not have been later disturbed. Its age, therefore, seems well assured; and it closely resembles in color, form and decoration the earliest Italian black pottery." In this example the chevrons are made up of incised lines crossing each other, alternating with plain triangles. But they differ in appearance from the "wolf-tooth" pattern, and the ware does not resemble the early Italian *bucchero* ware, black through its entire substance, inasmuch as Mr. Petrie's fragment is of a red ware blackened on the surface. Thus it is incorrect to say that this fragment resembles in "color, form and decoration" "the earliest Italian black pottery."

But Mr. Petrie's pleasing little romance about the "Phœnician trader" (who may, perhaps, have been partner of the one who beguiled the noble swineherd Eumæus' nurse) pales before the

striking picture he has drawn of an early civilization in Europe, in the Bronze Age, whose rise he places earlier than 2,500 B. C., and which he styles the "Mycenæ Period."¹ These ideas he has still further elaborated in a subsequent volume. "Some of the metals were known in Europe before they appear in use in Egypt; the use of bronze is quite as old in the North as in the South of the Mediterranean; and the tin of Egypt probably came from the mines of Hungary and Saxony, which most probably supplied Europe at that time. Iron appears in Europe as soon as in Egypt. The best forms of tools are known in Italy two or three centuries before Egypt possessed them."² The only reasons I have seen assigned by Mr. Petrie for the confident belief that this very early culture "reached out to the North of Europe," are to be found in *Notes on the Antiquities of Mycenæ* (Journ. of Hellenic Studies, XII, 204). These are: (1) The finding in grave No. IV, at Mycenæ, of a vase in the shape of a stag, which Mr. Petrie calls a silver-lead "reindeer or elk."³ (2) That "the amber so commonly used at Mycenæ is proved to have come from the Baltic." This statement is grounded upon a quantitative analysis made by the chemist Otto Helm, of Danzig, of a fragment of an amber bead found at Mycenæ.⁴ Two grammes of this amber were found to contain six per cent. of amber acid. This he failed to discover in amber from Sicily or Italy, although it is found in a less amount in amber from Lebanon, Gallicia, Hungary and Austria; while that from Roumania and Bukowina contains as much acid as the Baltic amber. Nevertheless, Herr Helm is of the opinion that the amber from these latter countries can "easily be distinguished from it by color, hardness and disintegrated layer." The reader must judge for himself whether this amounts to "proof" that the amber beads found at Mycenæ actually came from the Baltic. (3) The next reason assigned by Mr. Petrie is the resemblance which the style of decoration employed at Mycenæ bears to "Celtic" ornament. (4) His final argument is drawn from the analogy between certain knots or

¹ *The Egyptian Bases of Greek History*, in *Journ. of Hellenic Studies*, XI, 277.

² *Ten Years' Digging in Egypt*, p. 153.

³ See *Mycenæ and Tiryns*, p. 257.

⁴ See *Tiryns*, p. 372.

ties, made of a green glazed pottery (which probably represent the fastenings to draperies hung on the walls at Mycenæ), to what has been found in "great Scandinavian tumulus chambers of a later age, which were likewise lined with hangings." These are all the arguments I have seen relied on by Mr. Petrie to sustain his novel theory that the Bronze Age originated in the North of Europe 2,500 B. C. Nowhere has he brought forward any evidence, so far as I am aware, that the tin used in the Bronze Age was derived from mines in Hungary and Saxony, which at the present day, certainly, do not count for much in the world's supply of that metal.

HENRY W. HAYNES.

Boston, December 18, 1893.

BYZANTINE ARTISTS IN ITALY FROM THE SIXTH TO THE FIFTEENTH CENTURY.

[PLATE X.]

In a recent number of the *Revue de l'Art Chrétien* (May, 1893), M. Eugène Müntz, the well-known historian of art, published an article entitled *Les artistes byzantins dans l'Europe latine du V^e au XV^e siècle*. In this paper he makes a valuable contribution to the Byzantine question by collecting for the first time some documentary evidence of the presence of Byzantine artists in Western Europe. In the midst of contradictory affirmations of equal vehemence as to the presence or absence of Byzantine influence in the West during the Middle Ages, this is a useful piece of work, and I here offer a supplement to M. Müntz's paper in so far as it relates to Italy. Of course such information as this, consisting of artists' signatures and of texts, is of such an accidental nature that the absence of it would not necessarily entail the absence of Byzantine art and influence, and in this respect I cannot quite agree with M. Müntz when he states that the documents he has gathered prove that "the Byzantine influence was rather intermittent than general and constant;" for, in the first place, lists so incomplete as his and mine cannot give even an approach to a correct view. For example, the additions that are here made to his list fill up several of the vacant places which led him to conclude in favor of the intermittence of Byzantine influence. Furthermore, we know how seldom it was the Byzantine custom, up to a late period, for the artist to sign his works, and how unusual in literary notices of them it was to name these artists. For them the work was all, the man nothing: the idea in the work, which was a common possession and not one man's pride, was what made its worth; not the technique of it, which was but a means. I should not be surprised, in fact, if it would

be possible to find as many names of Byzantine artists in the West as in the East. What could be deduced from that? Certainly not that there were as many Byzantine artists in the West as in the East! It is therefore evident that even were all the existing signatures and all the literary notices to be gathered together they would represent but an inadequate and perhaps a one-sided view of Byzantine art in the West. The works of art themselves must, after all, be the only real criterion as to the prevalence or absence of Byzantine influence.

Having shown the limitations of the material presented in this paper, I will only add that in it I shall follow M. Müntz's good example in omitting the testimony of monuments bearing Greek inscriptions, although they certainly "do imply the personal and direct intervention of Byzantine artists," and I shall include a few portable works in European collections and churches which bear the signatures of Byzantine artists, although there may be doubts as to the presence of these artists in the West, such works being often objects of commerce. I shall also include some artists about whose Byzantinism there may be some controversy.

VI CENTURY.

For the VI century, when Byzantine art first obtained a strong foothold in Italy, M. Müntz finds nothing authentic, and correctly declines to accept the testimony for the presence of Italo-Byzantine artists at Monte Cassino given by a late mediæval document. Still I would suggest that during the reign of Justinian there could hardly have failed to be some Byzantine artists in Italy, especially during the years of occupation by Belisarius and Narses. Narses built in 565 over the Anio, on the Via Salaria Nova, a bridge which existed nearly until this century; and whose inscription is famous for its flowery and pompous diction.¹ Both Narses and Belisarius erected monuments in Rome and elsewhere.²

Of one Byzantine artist in Italy at this time we are not at all certain, for the majority of writers see in him merely a Mæcenas

¹ GREGOROVIVS, *Geschichte Roms*, II, p. 130; HODGKINS, *Italy and her Invaders*, IV, p. 400.

² Belisarius built a *xenodochium* near the Via Lata and the monastery of S. Juvenal near Orte. Narses added a building to the Basilica of S. Apollinare in Classe at Ravenna.

and not an artist. This is the banker or *argentarius* Iulianus,³ who built many churches at Ravenna. Agnellus (*Lib. Pont.*), who wrote in the ix century, on the faith of inscriptions attributes to him S. Vitale,⁴ S. Apollinare in Classe,⁵ S. Maria Maggiore, and S. Michele in Affricisco.⁶

With one exception the style of these churches was the basilical, but in S. Vitale he built one of the world-renowned and typical Byzantine domical churches. Of course the question is whether he merely supplied the funds or was also the designer. These are the words of Agnellus that relate to the share taken by Iulianus in the construction of these churches at Ravenna. Of S. Vitale, in the life of archbishop Ecclesius, he says: *Ipsius temporibus ecclesia beati Vitalis martiris a Iuliano argentario una cum ipso praesule fundata est.* And again: *ecclesia beati Vitalis martiris a Iuliano argentario constructa est. Nulla in Italia ecclesia similis est in aedificiis et in mechanicis operibus. Expensas vero in praedicti martiris Vitalis ecclesia, sicut in elogio sancta recordationis memoriae Iuliani fundatoris invenimus, 26 milia aureorum expensi sunt solidorum.* The commemorative inscription in mosaic placed in the atrium of S. Vitale, as given in Agnellus, contains the following verses which seem to prove Iulianus' personal supervision:

*Tradidit hanc primus Iuliano Ecclesius arcem,
Qui sibi commissum mire perfecit opus.*

Of S. Maria Maggiore, after stating that Ecclesius built it on his own property, he says that it had been, however, begun by Iulianus after the archbishop's return from Constantinople, in 526: *inchoatio vero haedificationis ecclesiae parata est ab Iuliano, postquam reversus est praedictus Ecclesius . . . de Constantinopoli.* The colony of Greeks at Ravenna was very numerous at this time.

³ See HARTMANN, *Untersuchungen zur Geschichte der Byzantinische Verwaltung in Italien.* VON QUAST, *Die altchr. Bauwerke von Ravenna.*

⁴ Beati martiris Vitalis basilica mandante Ecclesio vero beatissimo episcopo a fundamentis Iulianus argentarius aedificavit ornavit atque dedicavit consecrante vero reverendissimo Maximiano episcopo sub die XIII sexies p. c. Basillii junioris.

⁵ Beati Apolenaris sacerdotis basilica mandante vero beatissimo Ursicino episcopo a fundamentis Iulianus argentarius aedificavit ornavit atque dedicavit consecrante vero beato Maximiano episcopo die Non. Maiarum ind. xii octies p. c. Basillii.

⁶ Consecuti beneficia archangeli Michaelis Bachauda et Iulianus a fundamentis fecerunt et dedicaverunt sub die Non. Mai quater p. c. Basillii junioris viri clarissimi consulis ind. viii.

VII, VIII AND IX CENTURIES.

For these three centuries M. Müntz finds no documents. He calls attention to the fact that the election of a series of Greek and Syrian popes, between 685 and 752, must have attracted many Byzantine artists to Rome, adding a note on the introduction of Greek monks into the monastery of SS. Stephen and Silvester by Pope Paul I (757-67). In so far as Rome is concerned, such evidence as this is almost limitless during these centuries. The city was crowded with Greeks and its monasteries with Greek monks. If we take the region between the Aventine and the Tiber alone, we find that the river bank at that point was called in the VIII century *Ripa Graeca*, on account of the numerous Greeks: that there was a *Schola Graeca* attached to the Church of S. Maria, which gave it its name of *S. Maria in Schola Graeca*, afterwards called *in Cosmedin*. In this general region the Greek monks had establishments at SS. Alessio e Bonifacio, S. Saba, S. Balbina, S. Cesareo, S. Maria in Cosmedin, and, in other quarters, at S. Pantaleo, S. Silvestro in Capite, S. Prassede, S. Lorenzo, S. Anastasio, S. Gregorio and S. Basilio. But concerning the entire question of the Byzantine Greeks and their influence in Rome, I intend to treat in another paper, and will therefore add no more at present.

I can enumerate, however, the names of several artists who flourished in the ninth century: Lazarus, Chrysaphos, and Methodius.

Lazarus.—In the IX century a prominent Byzantine painter named Lazarus was sent from Constantinople to Rome by the Emperor Michael III (842-67), under the pontificate of Benedict III (855-58). This fact is chronicled in the *Liber Pontificalis* (Life of Benedict III), and further information concerning this artist is given in the continuation of Theophanes by Constantine Porphyrogenetos (I. III, ch. XIII). These are the words of the *Liber Pontificalis*: *Hujus temporibus Michael filius Theophili Imperatoris Constantinopolitanae urbis Imperator ob amorem Apostolorum misit ad beatum Petrum Apostolum donum per manum Lazari monachi, et Pictoriae artis nimis eruditi, genere vero Chazai, id est, Evangelium de auro purissimo, cum diversis lapidibus pretiosis. Calicem vero*

similiter de auro, et lapidibus circumdatum . . . Similiter et vestem de purpura Imperiali munda super altare majus ex omni parte cum historia, et cancellis, et rosis de chrysoclavo, magnæ pulchritudinis decoratam, etiam et velum de stauraci unum, cum cruce de chrysoclavo, et litteris de auro Græcis. The passage in the continuation of Theophanes relates how the Emperor Theophilus persecuted Lazarus who was a famous painter-monk of his age—*περιβόητος δὲ τηλικαῦτα κατὰ τὴν ἑῷα γράφουσιν ὑπῆρχε τέχνην*—and how notwithstanding his tortures Lazarus painted a picture of John the Baptist for his church called τοῦ Φοβεοῦ and another of Christ for the Chalke.

Byzantine artists in Venice.—The ix century may also have witnessed an invasion of Venice by Byzantine artists. The Venetian historian Sansovino, in his *Venetia*, relates that doge Giustiniano Partecipazio, on his return from his journey to Constantinople, founded the church of S. Zaccaria in order to obey the desire expressed by the emperor Leo V, “who sent him not only money, but also workmen and excellent masters in architecture, in order to have the church beautiful and to secure its rapid erection.” This church was begun before 820, when the emperor died, and was perhaps finished in about 827, according to Cattaneo.⁷ It has been made over to such an extent that no trace of its primitive style remains.

Chrysaphos.—Chrysaphos, who must have been a Greek architect, was, early in the ix century, chamberlain of Pope Leo III, and was charged by him with the restoration of the great basilica of S. Apollinare in Classe at Ravenna. The suburb of Classe had been for some time falling into ruin, and Ravenna, for more than a century on a rapid decline, showed itself perfectly supine. The church of S. Apollinare was falling to decay and was without roof. Leo III sent his *cubicularius* Chrysaphus, with many workmen, to restore it and give it a new roof. This is recorded in two authorities almost contemporary with the event—by Agnellus in the *Liber Pontificalis* of Ravenna, and by the *Liber Pontificalis* of Rome. In his life of Archbishop Martin, Agnellus says :⁸ *Eo namque tempore Leo Romanæ ecclesiæ et urbis antistes misit cubicularium suum*

⁷ CATTANEO, *L'architettura in Italia dal secolo vi*, p. 237.

⁸ AGNELLI qui et ANDREAS, *Liber Pontificalis Ecclesiæ Ravennatis*, ed. in *Mon. Germ. Hist.* in volume of *Script. rer. Langob.*

nomine Crisafum, et reliquos caementarios, restauravit tecta beati Apolenaris, omnia ex trabibus et laquearibus abiegnis, et omnia illius martiris tegumenta; una cum suo dispendio omnes suburbanæ civitates veniebant, omnia docaria, et subtegulata et omnia ligna abiegna et quæ necessaria erant Ravennenses cives volventes in angaria cum funibus et ingemas cetera. Caementariique ordinabant trabes super parietes, et perfecta sunt omnia; solaque hypocaustosis hic pontifex infingere praecepit.

The same event is reported in less detail in the Life of Leo III in the *Liber Pontificalis*: "*Basilica vero beati Apollinaris martyris, atque Pontificis, quæ fundata est juxta civitatem Ravennam, cujus trabes prae nimia vetustate de amorum curriculis, et olitanis temporibus nimis enaruerant, jamque penè ruituræ in tempore illo erant, isdem venerabilis Pater divinitus inspiratus, misit illuc, et per solertissimam, ac providam curam suam omnia sarta tecta ipsius Ecclesiæ simul cum quadriporticis suis noviter, ac firmiter restauravit, et in meliorem reduxit statum.*"

Methodius.—There was a Greek painter in the ninth century named Methodius who is famous as being connected by the Byzantine historians with the conversion of the Bulgarians, whose fears he excited by a wall-painting of the Last Judgment which he painted in the palace of their king, Michael, called, before his baptism, Bogoris.⁹ Constantine Porphyrogenetos¹⁰ describes him as a monk of the Romans, a painter, then in the Orient (*μοναχόν τινα τῶν καθ' ἡμᾶς Ῥωμαίων ζωγράφων* · *Μεθόδιος ὄνομα τῷ ἀνδρί*). It has been customary to consider this painter Methodius to be identical with the Methodius, born at Thessalonica, who assisted his brother Cyril in converting the Slavs in Moravia, Bulgaria, Bohemia, Silesia, Croatia, and almost all the other countries in which the Slavic tongues were spoken. The two brothers are known as the Apostles of the Slavs. Methodius long survived his

⁹ SYMEONTS MAGISTRI Annales, ed. Bonn, p. 665.

Τῷ δ' αὐτοῦ ἐτεῖ ἐκστρατεῖαι Μιχαὴλ ἅμα Καίσαρι διὰ τὴ γῆς καὶ θαλάσσης κατὰ Γόθους ἄρχοντι Βουλγάρων · τοῦτο μαθόντες οἱ Βουλγαροὶ . . . Χριστιανοὶ τε γενέσθαι καὶ ὑποτάσσεσθαι τῷ βασιλεῖ Ῥωμῶνων ᾗτήσαντο. ὁ δὲ βασιλεὺς τοῦτους ἐν τῇ πόλει ἀγαγὼν ἐβάπτισεν πάντας καὶ τὸν ἄρχοντα αὐτῶν Μιχαὴλ ἐπωνύμασεν · δις εἰς τὸ ἱεὺς ὑποστρέψας διὰ ζωγράφου Μεθοδίου λεγομένου τὴν κρίσιν καὶ ἀναπόδοσιν ἐν τῷ οἴκῳ αὐτοῦ γραφῆναι πεποίηκεν · διὸ καὶ μᾶλλον τὴν ἐκ παντὸς τοῦ γένους αὐτοῦ καθυψίσταται ἐπανάστασιν, κ. τ. λ.

¹⁰ Life of Emp. Michael son of Theophilus, ed. Bonn, p. 164.

brother and his work was the more important. Both came to Rome—Methodius more than once—and were the means of bringing the Slavic lands into the Roman fold.

A recent article by Jellic¹¹ has given us for the first time a scientific study of the famous Vatican ikon of SS. Peter and Paul, held, since the XII century to have been the very picture of the Apostles shown by Pope Silvester to Constantine. He shows it to be a votive picture presented to the Vatican basilica toward the middle of the IX century by Cyril and Methodius at the time of their joint stay in Rome in 867-9, in gratitude for their appointment in 869 to be bishops of the Slavic provinces. They had executed—probably in the same year—in the narthex of the basilica of S. Clemente, where both were afterward buried, a votive wall-painting in which they are represented as the donors. The figures are the same in both pictures, and the style is so similar as to lead Jellic' to conclude them to be by the same hand. The style is thoroughly Byzantine and of the IX century and the hand is, according to him, that of Methodius, whose identity with the painter of this name mentioned in the Byzantine annals he accepts without question. I confess that I am disposed to agree with him. Perhaps an argument in favor of this identity can be drawn from the expression in Constantine Porphyrogenetos, who describes the painter Methodius as *μοναχὸν τῶν Ῥωμαίων* "a monk of the Romans": he means, of course, a monk of the Roman church, that is, subject to Rome and not to the Eastern church. This expression, which, under ordinary circumstances, would be unusual, seems natural in view of the unusual prominence given to the contest between the Eastern and Western churches as to who should evangelise the Slavs, and it accords with the interesting circumstance that although Cyril and Methodius were Greeks, yet they were loyal followers of the Roman church. To judge from the two paintings just mentioned Methodius did not represent the best type of Byzantine art as practised in the schools of Constantinople and Mt. Athos, but rather a provincial school, perhaps that of his birthplace, Thessalonica.

¹¹ *Nuove osservazioni sull' icone vaticana dei SS. Pietro e Paolo* in the volume *Archäologische Ehrengabe der römischen Quartalschrift zu De Rossi's LXX Geburtstage*, herausgegeben von A. DE WAAL, Rome, 1892, pp. 88-94.

S. Prassede.—Judging from their style, there is every probability that the important mosaics of the church of S. Prassede in Rome were executed by Greek artists under Pope Paschal II. This is confirmed by a passage in the *Liber Pontificalis*, where, after describing in glowing terms the rebuilding and decoration of the church, the writer continues, stating that Pope Paschal built in the same place a monastery to S. Prassede, which he filled with Greek monks: "*Construxit in eodem loco a fundamentis Cenobium, quod & nomine Sanctæ Praxedis virginis titulavit. In qua & sanctam Græcorum Congregationem aggregans, quæ die, noctuque Græcæ modulationis psalmodicæ laudes omnipotenti Deo, Sanctisque illius, ibidem [i. e., in Ecclesia] quiescentibus, sedulo persolveret, introduxit.*"

I have mentioned the mosaics of S. Prassede, in connection with the establishment of Greek monks, for the reason that it is a well-known fact that Byzantine art was entirely in the hands of the monasteries, and that many a Greek monastery in Rome was probably a centre of Byzantine art. I am not aware that attention has ever been drawn to the fact that hereby one can explain the Byzantine character of so many of the Roman mosaics. A number of other examples could be cited. It is during a part of this period that the Byzantine style is paramount in Italian decorative sculpture. In his wonderfully acute study of Italian art before the year 1000, Cattaneo (*op. cit.*) has shown that this Byzantine decoration was paramount between the VI and XI centuries; that at times nearly all of it is the work of Greek artists residing in Italy, and at other times it is the product of Italian imitators. His arguments are quite convincing. Thus far it has been impossible, however, to ascertain the name of a single one of these Greek artists.

X AND XI CENTURIES.

The facts arrayed for these two centuries by M. Müntz are more abundant and interesting. They consist: (1) Of the late tradition regarding the architects of S. Marco in Venice; (2) of the influence of the Byzantine Princess Theophanu in Germany, after her marriage to Otho II; (3) of the presence at the court of Saxony of a Byzantine painter from Constantinople; (4) of the construction by Greek workmen of a chapel in the cathedral of

Paderborn; (5) of the presence of Greek monks in France; (6) of the Byzantine artists called to Monte Cassino by Desiderius, towards 1070 A. D. Only two of these relate to Italy and there are no artists' names. The artists whose names I am able to bring forward are: Buschetus (?), Theophylaktos and Eustathios.

I would first call attention, though without insisting, to three monuments of the XI century, the abbey church of Grottaferrata, near Rome, the abbey of SS. Silvestro e Martirio, near Orvieto, and the cathedral of Pisa. The monastery of Grottaferrata was founded at the close of the tenth century by Greek monks, led by S. Nilus, and its mosaics are Byzantine (see my article in *Gazette Archéologique*, 1883). The abbey of SS. Silvestro e Martirio, near Orvieto, was inhabited by Benedictine monks, and its buildings show a mixture of Byzantine and Romanesque styles.

Pisa.—The cathedral of Pisa was largely the work of the architect Buschetus, who was, according to the tradition, a Greek, though it has been argued that he was an Italian by birth, whose artistic education was made in Greece. His name is apparently Greek and certainly not Italian. It is an interesting coincidence that in 1099 the Byzantine Emperor Alexis I sent over funds to help complete the cathedral. It is well known that there are many points about this monument that are Byzantine, the most important being the cruciform plan with excessively long transepts approximating the form of a Greek cross, and the dome. One point which it would be interesting to study is the relation between the polychromatic external decoration of the group of Pisan and Lucchese churches and their cognates, and that of a few Byzantine churches and Mohammedan mosques of contemporary and slightly earlier dates. We may ask: Did not some such Byzantine artist as Buschetus introduce into Tuscan architecture this characteristic and beautiful style of external architecture, combining it with the false arcades of the Lombard style?

The baptistery at Pisa, though of later date, gives equal evidence of the presence of Greek artists in the exquisitely finished and purely Byzantine sculptures on its doorways, which are the finest of this style in Italy. They make us ready to believe, at least in part, Vasari's statement about the "scultori greci che lavorarono le figure e gli altri ornamenti d'intaglio del duomo di

Pisa e del tempio di S. Giovanni." But, of course, his assertion is in itself of but little value.

Sicily.—One of the earliest known works of the Byzantine artists in Sicily is a miniature representing the Virgin in a Greek MS. written shortly after the Norman conquest. It is copied from an image in a chapel at Palermo finished in 1048. The MS. contains the text of the constitution of a pious fraternity of Greek ship-builders called S. Maria of the *Naupaktitessis*, whose place of reunion was in Palermo, in the church of S. Michael, attached to the monastery of the Naupaktitessi. This association was closely connected with other branches in the East, particularly in Constantinople; and it is not necessary to recall the fact that the Greek population in Sicily was very numerous, and that during the Norman rule the Greek liturgy remained in use, and also the Greek language. The fact of the habitual arrival in Messina of Byzantine artists is attested for later times by the synodal decrees of five archbishops of Messina—Antonio Lombardo, Andrea Mas-trillo, Simon Carafa, Giuseppe Cicala and Giuseppe Migliaccio—which exact that all *i maestri di Buone arti* coming to Messina from the East must, four days after their arrival, make profession of faith before the *protopapa*.

Michael.—One of the finest Greek manuscripts illustrated by Agincourt (*Hist. de la Peinture*, pl. LXXXI) bears on fol. 234 the inscription: *Scriptus est venerandus iste liber per manum mei Michaelis monachi peccatoris, mense Martio, 1. die, feriâ quinta, horâ sexta, anni 6457 (=949 A. D.), indictionis septimæ.* The illuminated decoration, consisting merely of arabesques, animals and birds placed in circles or arches, is not of the kind that would be executed by a separate artist, and we may regard Michael as not only the scribe but the decorator of this beautiful specimen of Greek palæography. The fact that the inscription is in Latin proves almost conclusively that Michael was living in the West—although Agincourt is my only authority for its Latinity.

Calabria.—*Theophylaktos.*—In a crypt at Carpignano, a village to the N. W. of Otranto, is a niche whose frescoes are signed and dated. M. Diehl¹² made this discovery and reads the inscription

¹² CHARLES DIEHL, *Peintures Byzantines de l'Italie Méridionale. Les Fresques de Carpignano*: in *Bull. de Corresp. Hellen.*, 1885, pp. 211–213.

as follows: † Μνήσθ[η]τη, Κ[ύρι]ε, τοῦ | δούλου σου Λέων-|τος πρεσ-
βι[τέ]ρου | κ[αί] τῆς(ς) συμβίου | αὐτοῦ Χρυσό-|λεας κ[αί] Παύ[λου]
| τοῦ υἱοῦ αὐτοῦ. | Ἀμήν. Γραφὲν δι-|ὰ χηρ[ὸς] Θεοφυλά-| κ[αί]του ζογ-
ράφου μνη| Μα|ῆο ἑνδικτίων[ος] β | εἴ]τους ̅ς̅ ̅ξ̅ ̅ξ̅. The donors are the priest Leon, his wife Krusoleas and his son Paul. The date is May, in the year of the world 6467=959 A. D. The painter is the monk Theophylaktos. The subject of the wall-painting is Christ enthroned, of remarkably good style. It is interesting for the history of the type of Christ and important for an acquaintance with the history of Byzantine art: all this is well demonstrated by M. Diehl.

Eustathios.—In the same crypt near Carpignano, mentioned above under the painter Theophylaktos, M. Diehl¹³ found the signature of a second artist, in another niche. The inscription is painted at the base of another figure of Christ enthroned, and gives the date of the year of the world 6528=1020 A. D. M. Diehl reads the inscription: † Μν[ή]σ[θ]ητι, Κ[ύρι]ε, | τοῦ δούλου σου Ἀ-|δριανοῦ κ[αί] τῆς | συνβίου αὐτοῦ κ[αί] τῶν τ[έ]κνων αὐ-
τοῦ τοῦ . . . που|λῶ ἀνηκοδομή-|σ[αυτος] κ[αί] ἀνηστο-|ρήσαντ[ος]
τῆς παν-|σ[έ]πτας ἱπουνάω | ταύτας. Μνη|μαρ[τίω] | ἑνδικτίωνος ̅γ̅ |
ετ[ους] ̅ς̅ ̅ϥ̅ ̅κ̅ ̅η̅. Γραφ-|ἐν δὲ|ὰ χηρ[ὸς] Εὐ-|σταθίου ζο-|γράφου.
Ἀμήν.

The painter's name is Eustathios: the donors Hadrian, his wife and son. The style of the work is quite different from the earlier work of Theophylaktos. The type of Christ has grown severe and sad, and it is interesting to note that the change in this type during the sixty years that had elapsed since Theophylaktos is but an echo of what happened throughout Byzantine art.

XII CENTURY.

For the XII century M. Müntz cites two examples: (1) The Greek weavers established at Palermo by King Roger II in 1146; (2) the Byzantine mosaicist, Marcus Indriomeni, who worked in Venice in 1153.

Bion.—It is singularly exasperating to the historian to have so little information regarding the personality and names of the

¹³ CHARLES DIEHL, *ubi sup.*, pp. 209–210.

Byzantine artists employed by the Norman Kings in Sicily. We know that they must have been numerous. The only name I can cite is that of a bronze caster named Bion, who cast in 1186 for King Roger the great bell for the cathedral of Palermo, with a relief of the Virgin. This bell was cracked in 1557 and made over. The inscription upon it was: *Ind. X fusa Panormi Rogerius Siciliae Italiaeque rex magni comitis Rogerii filius me dextera Bionis fundi ac D. Mariae dicari jussit.*¹⁴

The heads on the bronze doors of the Cappella Palatina are in the same style.

Theophilus.—The great mediæval technical manual of the arts written by the monk Theophilus, and entitled *Diversarum artium schedula*, probably dates from the latter part of this century. Theophilus shows in it a minute acquaintance with the methods of Byzantine artists, which could be gained only by having seen them at work in ateliers. It is in Bk. II, chapters XIII to XVI, that he describes Byzantine methods for the manufacture of glass vases, of glass mosaics, and of enamelled fictile vases. Theophilus is thought to have been either a German or an Italian, the presumption being in favor of the former nationality. It is probable that his acquaintance with Byzantine art was gained in the workshops of Sicily, Southern Italy, and Venice, for there is no reason to believe that he travelled in the East.

Daniel.—M. Charles Diehl,¹⁵ whose studies have given us the first clear knowledge of the Byzantine and Italo-Byzantine art of Calabria, has found on the vault of the crypt of S. Blasius near Brindisi in Calabria, not only the name of the Greek painter of the earliest frescoes in this crypt,—Daniel,—but their exact date, the year of the world 6705, the 15th indiction = 1197 A. D. The fragmentary inscription is thus deciphered and restored by M. Diehl. Ἀνοικ[ο]δ[ο]μήθη κα[ὶ] ἀ[νιστρρή]θη ὁ πάνσεπτος ναὸς τοῦ ἁγίου ἱερομαρτύρου Βλασίου ἡμῶν πατρὸς [ἐπὶ τοῦ ἁγίου] κυροῦ ἡγουμένου Βενεδιτοῦς καὶ διὰ συνδρομῆν[ος] τοῦ μ . . . αἰου τευ . . . καὶ διὰ χειρὸς μαιστροῦ Δανιὴλ κα(α) μιν . . . As M. Diehl remarks there are so few Byzantine frescoes that are surely dated that this inscription is very precious. Nothing is known of the hegoumen

¹⁴ DI MARZO, *Delle Belle Arti in Sicilia*, II, pp. 277-78.

¹⁵ CHARLES DIEHL, in *Bull. Corr. Hellén.* 1888, pp. 458-459.

or abbot Benedict for whom the work was executed, nor of the painter Daniel.

XIII CENTURY.

The four artists assigned by M. Müntz to the XIII century are : (1) The architect Nicholas of Constantinople, who built the drawbridge at the castle of Lucera; (2) the painter Theophanes of Constantinople, who is supposed to have had his atelier in Venice in 1242; (3) the mosaicist Apollonius, said to have gone from Venice to Florence, and supposed to have been the master in mosaic painting of Andrea Tafi, of whom more anon; (4) the painter Andrea Rico of Candia. To these I can add as new names: Melormus, Conxolus and Johannes.

Melormus.—In seeking to explain the formation of the style of Guido da Siena, the precursor of Cimabue, early in the XIII century, Dr. Thode asserts that he must have had as his master a Byzantine painter,¹⁶ and adds that the only name of such a painter known to us as then working in Tuscany is that of Melormus, who is said, in an ancient document cited by Wadding, to be the most famous Greek painter of his day, and who executed some images of S. Francis for the Count of Monte Acuto. His date is about 1212. It is unfortunate that Wadding, in his *Annales Ord. Min.* (I, 212), does not give his authority more definitely: but there can be no doubt of the fact itself.¹⁷

¹⁶ Man darf wohl annehmen, dass es ihm nicht allein durch das Nachahmen byzantinischer Gemälde möglich wurde, den fremden Stil so sich eigen zu machen, sondern dass er bei einem fremden Meister lernte. Dass solche damals nach Mittelitalien gekommen sind, ist mehr als bloss wahrscheinlich: der einzige freilich, der uns mit Namen bekannt ist aus dieser Zeit, ist ein Melormus, der, nach Waddings offenbar auf einer alten Quelle beruhenden Aussage, der berühmteste griechische Maler, damals auf Befehl des Grafen von Monte acuto Bildnisse vom hl. Franciscus angefertigt hat. HENRY THODE, *Studien zur Geschichte der Italienischen Kunst im XIII Jahrhundert*, in the *Repertorium für Kunstwissenschaft*, 1890, p. 19.

¹⁷ Cf. HENRY THODE, *Franz von Assisi, etc.*, 1885, p. 84. . verdient eine Bemerkung hier ihren Platz, die Wadding ohne seine Quelle anzugeben (I, 212) macht, nachdem er des Thomas Beschreibung angeführt: "dieselbe bestätigen die alten Bildnisse, die auf Befehl des Grafen von Monte acuto von dem in jener Zeit berühmtesten griechischen Maler Melormus gezeichnet wurden, während der heilige Mann unbeweglich im Gebete verharrte." Von jenem Melormus haben wir, so viel mir bekannt, sonst keine Kunde—the Tradition aber sah in einem jetzt nicht mehr nachweisbaren, von Pasta in seinen *Pittura di Bergamo vom Jahre 1775* (S. 53) in S. Francesco daselbst erwähnten Portrait die Wiederholung jenes in dem Hause des Grafen von Monte acuto 1212 in Florenz gefertigten (VI).

Conxolus.—The abbey of the Sacro Speco at Subiaco, famous as a principal centre of the Benedictines, has an extensive and interesting series of frescoes covering the VIII, XII, XIII, XIV and XV centuries. They are of no mean value for the development of painting in the XII and XIII centuries. Two painters alone have left their signatures on the walls of its churches and chapels, and both of these are Greeks—Conxolus and Stamatico. Fortunately we are able to date the work of Conxolus in the first quarter of the XIII century, about a half century before Cimabue. The second or subterranean church of the monastery is almost entirely painted in the Byzantine style of the end of the XII and the first half of the XIII century. On the left of the stairs by which one descends from the upper church, is a niche with a fresco of the Virgin and Child with two kneeling angels. An inscription above the head of the left angel reads: *Magister | Conxolu' pīxiti hoc op'*. A comparison soon shows that the frescoes on the neighboring wall and on the opposite wall are by the same hand, as well as the portrait of Innocent III in the corresponding position on the other side of the stairs. The pontiff is represented as presenting to the abbot a grant of privileges dated 1218. The historical documents of the monastery point to the year 1220 as the date for the painted decoration of the church by Abbot John VI. The three cross-vaults of the church are decorated with symmetrical frescoes. These, although repainted, show a similar style, probably the same hand, and I am inclined to attribute to Conxolus the entire series. The niche with the figures of the Virgin and Child was the most sacred place, and here it was natural that he should place his signature. These frescoes are important, and may be particularly studied as antecedent to the earlier series in S. Francis of Assisi. Conxolus should be regarded as the most important of the Byzantine artists working in Italy whose names are known to us.

Andreas Rīco [PLATE X].—M. Müntz places under the XIII century, and I think with reason, the painter Andrea Rīco of Candia. There seems no reason to believe that the date 1105, given in a catalogue as that of his death, is based upon anything but conjecture, and his style would indicate the XIII century. M. Müntz mentions the painting by him in the gallery of the Uffizi at Flor-

ence. There are several others, however.¹⁸ One painting is in the gallery of Naples.¹⁹ In my notes on the gallery of Parma I have found a record of two pictures by Rico, though one only is mentioned in Gsell-Fels' guide.²⁰

I noticed what seemed to me a singular coincidence of names between this Andrea Rico of Candia and the well-known painter and mosaicist of the second half of this century, Andrea Tafi, who worked in the baptistery at Florence, and was honored by Vasari with a Life, which is filled with errors even more than is his wont. This same Andrea Tafi is mentioned as follows in various contemporary documents :

1310, Andrea di Richo, vocato Tafo²¹ ; 1320, Andreas Ricchi (as selling paints²²) ; 1320, Andreas, vocatus Tafus, olim Ricchi.²³ The name Tafo is therefore not a family name, and the real name of Andrea Tafi is Andrea di Rico or Riccho, whose father died, as we see from the third document, shortly after 1320 (see *Frey, Die Loggia dei Lanzi*). It does not seem impossible to think that the Andrea Tafi of the mosaics in the baptistery of Florence and the Andrea Rico de Candia were but one man, and one might construct a romance as to how this Candiote (perhaps an Italian living in Candia), becoming known in Italy through his portable pictures, was called to Florence and took there a prominent place in the revival of mosaic painting.

Rico's painting, which is reproduced on PL. X, is of sufficient importance to merit careful study, for it is perhaps the most beautifully executed of the early portable Byzantine paintings in Italy. The inscriptions, which appear to be without any doubt original, are in themselves sufficient to place the painting later than about 1250, for they are in advanced Gothic majuscules and minuscules, and also sufficient to prove that this painting was executed in the West. The composition consists of the Virgin holding the Infant Christ in her arms, while above two angels, of smaller proportions,

¹⁸ There was one in the collection of M. Artaud : see EMERIC-DAVID, *Hist. de la peint. au Moyen-âge*, p. 123.

¹⁹ *Catalogue*, ed. 1893, p. 247.

²⁰ No. 447 of the gallery.

²¹ *Matricola artis collegi et universitatis medicorum, aromatariorum et merciariorum Porte sancte Marie civitatis Florentie* : cod. VII.

²² *Matricola dell' arte de' Medici Speciali e Merciai* : cod. VIII.

²³ In a list of druggists, compiled after 1320 by the notary public Spigliato Dini.

hover in the air. The Virgin bears the traditional Byzantine mantle covering the heads: its folds are broad and not broken up, as is so often the case, with gold lines. Over her head is the inscription ΜΤ ΔΙ *Mater Domini*. The Child turns his head sharply upward and to the left, gazing up at the angel. Only the second part of the inscription over his head remains: ΧΡΣ. A peculiar naturalistic detail about the figure is the untied sandal which hangs from the Child's right foot by a single string. The flowered tunic is arranged in broad, graceful masses, but the mantle has closer folds marked with gold streaks. To the right of the Child's head there appears a long inscription which explains the special import of the picture—its relation to Christ's passion: *Qui primo candidissime gaudium indixit preindicat | nu(n)c passionis signacula car | nem vero Chr(istu)s mortalem i(n)dui. | Timens que letum talia pavet cernendo.* The Child is represented as looking in a startled manner at the instruments of His passion held by the two angels and being struck by fear. The angels above are delicate three-quarter figures ending in drapery: the angel on the right bears the cross and nails; the angel on the left the lance, the reed with the sponge and the chalice with the blood.

The panel is signed on the centre of the lower rim:

audreas rico de candia pinxit.

It is interesting to note that a Byzantine picture exists at the church of S. Alfonso de Liguori in Rome which represents exactly the same composition, even to the hanging sandal. It is known to have been brought to Rome from the island of Crete in the xv century by a pious merchant fleeing from the Turkish invasion, but it is probably much older than this date. The existence of a specific Cretan school is confirmed by its mention in the Byzantine *Ἑρμηνεία τῆς ζωγραφικῆς* or Guide of Painting (Pt. I, ¶ 51) which was the manual of the school of Mt. Athos.

Johannes.—In his *Hist. de l'Art*, Agincourt illustrates (pl. lxxxviii) in its original size a good example of Byzantine portable paintings, representing the Presentation in the temple, which is in the Christian Museum of the Vatican. The painting is in tempera on wood. Below is the inscription: ΧΕΙΡ ΙΩ: "*By the hand of Johannes.*" The style appears to indicate the xiii century, or at latest the early part of the xiv century.

I insert this artist and other Byzantine painters of portable pictures with the *caveat* that they may none of them have actually been executed in Italy, though the ascertained presence of other Byzantine artists makes it probable that some of them were on the ground.

XIV CENTURY.

For this period M. Müntz gives: (1) The painter Marc of Constantinople, who worked at Genoa in 1313; (2) the painter Demetrius of Pera, who appears also at Genoa in 1371; and (3) the painter George. To these I would add: Georgios Clotzata, Kyrillos, Stamatico, Antonios Pampilopos, Eutichios, Eustatheios and Donatus Bizamanus.

Georgios Clotzata.—Another tempera painting in the Vatican collection (Agincourt, pl. xc), with two saints on horseback, both named Theodore, is by Georgios Clotzata. There is on the back an inscription in three lines, the first, with the artist's name, reads: ΓΕΩΡΓΙΟΥ ΧΕΙΡ ΚΛΟΤΖΑΤΑ.

Kyrillos.—There existed in 1756 in Palermo a tryptich described by Jacopo Gambacosta²⁴ and signed by the monk Kyrillos.²⁵ The inscriptions are all in Greek, and the signature reads: ΕΝ ΤΡΑΤΟΙΣ ΜΗΞΘΗΤΙ ΚΕ ΚΥΡΙΑΛΟΥ ΥΕΥΘΟΜΟΝΑΧΟΙ. The painting represents in the middle the Trinity, on the sides the Annunciation, and on the outside of the shutters S. Nicholas on the right and on the left relics of S. Spiridion. There is no clue to the date of this artist: he may belong to a later century.

Stamatico.—The second of the two Greek painters in the Monastery of the Sacro Speco at Subiaco is Stamatico. His name is inscribed in characters apparently of the XIV century, on a wall near the entrance of the chapel of the Virgin, as one descends the sacred staircase of S. Benedict from the second or subterranean church. The inscription was injured some years ago by the attempt of an archæologist to use acids. It reads at present: STAMATICO.GRECO PICT[OR]. According to the monks there was originally to be read the word *perfecit* after pictor. I would not venture to attribute to this painter any of the frescoes

²⁴ *Memorie per servire alla storia letteraria di Sicilia*, vol. II, pt. III, p. 271.

²⁵ Di MARZO, *Delle Belle Arti in Sicilia*, vol. II, p. 59.

on the staircase or in the adjoining chapel: they are of the xiv and early xv century. The guide to the monasteries of Subiaco, printed in 1840, states that there is a xvi century date attached to the signature, which has since disappeared. I am inclined to dispute this date, and to believe that a 5 was read where a 3 should have been seen.²⁶

Antonios Pampilopos.—A painting on wood, signed by Antonios Pampilopos, is in the Christian Museum of the Vatican. It represents the Virgin giving suck to the infant Christ, whose nimbus is accompanied by the letters O Ω N: the figures are on a gold ground. This is not among the examples of the early Byzantine school, and may be even later than this century.

Eutykhios.—Agincourt reproduces on plate cxxv a cross, upon which eight half figures of saints are painted in miniature style. It was preserved in the sacristy of the Benedictine monastery of the Sacro Speco at Subiaco. The following inscription is painted on the cross in red letters: *Anno Domini mccc[L?]*xxxviii hoc opus fecit fieri frater *Franciscus de Santo Destasio de Nursia monachus monasterii Sublacensis . . . hoc opus fecit magister Euticio*. Both style and name make it tolerably certain that this artist was a Greek named Eutykhios, the Latin inscription being no argument to the contrary.

From the three examples cited it would appear as if the monastery at Subiaco followed the example of its larger brother at Monte-Cassino in employing Byzantine artists.

Eustatheios.—Cardinal Fesch had in his collection a painting attributed to the xiv century with the inscription: EYCTAΘEIOC . . . ICTOPHCEN.²⁷

Donatus Bizamamus.—A large part of the mediæval population of Otranto was Byzantine, and many lingered long after the city was taken from the Greeks by Robert Guiscard in 1080; lingered, in fact, into the period of the Renaissance, up to the time of the destruction of the city by the Turks in 1480. During this

²⁶ *Memorie Storiche del Sacro Speco di S. Benedetto sopra Subiaco*. Here we read, on p. 86: *si mira un' effigie di S. Gregorio il grande, e sotto si legge il nome del greco pittore Stammatio, e fortunatamente vi ha l'anno aggiunto al suo nome cioè il 1489*.

²⁷ EMERIC-DAVID, *Histoire de la Peinture au Moyen-Age*, Ed. 1863, p. 129, note.

period a school of Byzantine painting appears to have flourished. Two artists' names have been preserved, both of a family named Bizamanus. Of these two Donatus is the earlier. Agincourt places him in the XII or XIII century: Schultz²⁸ in the XIII. I do not believe him to antedate the XIV century. M. Müntz says of these artists: "Nous savons cependant qu'à ce moment (XV siècle) encore une famille d'artistes grecs, les Byzamani résidait à Otrante."

There is a painting in tempera, on wood, by Donatus Bizamanus in the Christian Museum of the Vatican.²⁹ It represents Mary Magdalen at the feet of the resurrected Christ in the garden. The inscription on the back reads: "*Donatus Bizamanus pi(n)xit in Hotranto.*" The elaborate landscape might point to the beginning of the XV rather than the latter part of the XIV century.

M. Artaud had in his collection, at the beginning of the century, paintings by both the Bizamani, and he thought himself able to determine their date as about 1184 or 1190!!³⁰

XV CENTURY.

There is hardly anything of interest during this century. The painter George of Constantinople, mentioned by M. Müntz, is evidently the same artist he has spoken of under the preceding century. The only other item relates to the Greek weavers called to France by Louis XI in 1480. Byzantine art ceases its development in this century, even in the East.

George of Constantinople.—M. Müntz reports, under separate headings, two documents which, as he himself suggests, appear to relate to the same artist, George of Constantinople. One shows him to be in Venice in 1396, the other in Ferrara in 1404. He does not mention any paintings by this artist. One exists, however, in the Brera Gallery at Milan, No. 305, which is mentioned in Gsell-Fels. It is signed, and represents St. Mark, which is a reason for believing it to have been executed during his sojourn in Venice.

²⁸ *Denkmäler der Kunst des Mittelalters in Unteritalien* I, 269, III, 147.

²⁹ AGINCOURT, *op. cit.*, pl. XCII.

³⁰ ARTAUD, *Considérations sur l'état de la peinture en Italie dans les quatre siècles qui ont précédé celui de Raphaël*. Paris, 1810, pp. 61 to 65.

Antonio da Negroponte.—Among the earliest Venetian painters in the first half of the xv century was Antonio da Negroponte, a monk, whose style shows him to have been a follower of Jacobello del Fiore, influenced by the Paduan school. There is a signed work by him at S. Francesco della Vigna in Venice, a Virgin enthroned in a bower of flowers and birds has the body of Christ lying on her lap. The inscription reads: *Frater Antonius da Negropoñ pinxit*.

Angelus Bizamanus.—This second member of the Bizamanus family is much later in date than Donatus, who may have been his grandfather, though the fact seems hardly to have been noticed except by Agincourt, who assigns him to the xiv or xv century. Schultz (*op. cit.*) can hardly have examined Agincourt's drawings of the Bizamani's pictures, for he assigns Angelus to the xi or xii centuries. At the earliest he belongs to the second half of the xv century. This is shown by the style and the inscription of his painting in the Vatican (Christian Museum). It represents the Visitation.³¹ The inscription reads: *Angelus Bizamanus Grecus pinxit . . . Ho[tr]an[t]o (?)*

Another painting by him, in the Berlin collection, has the crucifixion with the Virgin, Mary Magdalen and three other women, with an inscription on the back: † *Angelus Bizamanus pinxit in Hotranto*.

Crowe and Cavalcaselle do not apparently know of the existence of any of these works of the Bizamani, for they mention them in a note (vol. i, p. 68, Engl. Ed.) merely in connection with a S. George and the Dragon in the Naples Museum. I cannot say whether or no this picture is signed.

Theodoros.—I will add here the name of a painter contemporary with Angelus Bizamanus, or somewhat later. His name is Theodoros and his signed work is in the Vatican (Agincourt, pl. cxi). I should judge it posterior to Raphael, although Agincourt attributes it to the xiii or xiv centuries.

There are a number of other names that might be cited as probably those of Byzantine artists, but they will not be mentioned on account of the uncertainty. There are two to whom I shall merely refer:

³¹ AGINCOURT, *op. cit.*, pl. xciii.

1. *Liphas*.—This artist was placed by the Emperor Frederick II in charge of the construction of his castle at Capua, the most important artistic work of his reign.³² His name is certainly Greek.

2. *Pantaleon*.—One of the most artistic and elaborate figured mosaic pavements of the Middle Ages is that of the cathedral of Otranto, executed between 1163 and 1166 by the Priest Pantaleon, under Archbishop Jonathas.³³ Both the name and the Greek character of art in Otranto make it likely that we have here a Byzantine work, although it is quoted by Springer as an example of native art.

Although, for the reasons I have given at the beginning of this paper; I believe hardly any conclusions are to be drawn from the above material because so much more is to be gathered and classified before a fairly symmetrical picture can be imagined, yet I think the correct impression to be gained is that a stronger action than could have been predicted was exercised by the Greeks upon Italy by means of the actual presence of Greek artists.

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Princeton University,
October, 1893.

³² SCHULTZ, *Denkmäler*, IV, p. 7.

³³ SCHULTZ, *Denkmäler*, II, p. 267.

PAPERS OF THE AMERICAN SCHOOL OF CLASSICAL
STUDIES AT ATHENS.

A TORSO FROM DAPHNE.

[PLATE XI.]

The torso which by the kindness of the Ephor-General of Antiquities, Mr. Kabbadias, I am allowed to publish in this article, was found in the summer of 1892, in the Pass of Daphne, at the western end, near the temple of Aphrodite, in excavations conducted by Mr. Kabouroglos for the Archæological Society of Athens. It is noticed in the *Deltion* of 1892, p. 49, as κορμὸς νεανίου ἀρχαϊκῆς τέχνης, a designation which is not only inadequate, considering the importance of the object, but incorrect. It cannot properly be called archaic.

The torso is of Parian marble, and is somewhat more than two-thirds life size. The only significant dimension that can be given exactly is the length of the body from the bottom of the neck to the *membrum virile*. This dimension is .36 m. The figure is therefore somewhat smaller than the ephebus from the Acropolis, a cut of which is given in Collignon, *Histoire de la Sculpture Grecque*, p. 374. It coincides more nearly in size with the Ptoian Apollo published in the *Bulletin de Correspondance Hellénique* (1886, plate VI), except that the latter has an abnormally long body. Owing to the breaking off of the left leg and the right arm, with some of the body adjacent, it is impossible to give either the breadth of the shoulders or of the hips, or even the girth of our torso. Even the right leg is so broken as to leave no clear traces of the situation of the knee; but the thigh seems to have been longer in proportion to the body than was the case in the Ptoian Apollo.

There can be little doubt that the figure was meant to represent an ephebus, not so much from its small size as from the general

build. Plate XI represents the figure from two different points of view.

We see at once that we have before us a portrayal of intense exertion. In the absence of head, legs, and arms, it might seem preposterous to try to discover what the action is. When so little is preserved it might seem open to doubt whether the figure was standing upright or lying on its face or its back, or was brought to its knees, or whether it stood singly or facing an antagonist, either victorious or *in extremis*. Neither can we tell what it may have held in hands that are now gone. But, in spite of all this, an approximation to a reasonable interpretation may perhaps be made.

Let us notice more closely the position of our figure. The right leg is advanced very vigorously beyond the right shoulder; but the right arm was thrown back, as is shown by the flatness of the right breast compared with the left, the greater prominence of the ribs on the right side, and the rolling together of the muscles of the back adjacent to this shoulder. But while the left leg, of which we have not even a stump, was thrown far back, as the strained abdomen shows, the left shoulder (and this is the characteristic feature of the position) is thrown so far forward that when we look at it edgewise, taking the upper body *en flanc*, we see the lower body *en face*. The left arm, judging from the remaining stump, must have been extended forward and with a downward inclination directly in front of the *pubes*.

By this contrasted motion of the arms and the legs an antagonism is brought about between the upper and lower halves of the body; and yet, were all the missing limbs present, we should see a controlling symmetry in the whole figure, including a chiasmic responson of right arm and left leg, as well as of left arm and right leg, which we can *now* partly see.

The furrow running down the middle of the front of the body bends sharply from right to left, while on the back the furrow runs downward from left to right, drawn over to the right side by the forward tension of the right leg. Cf. Brunn, *Monuments de la Sculpture Grecque et Romaine*, No. 249, where the furrow is deeper than in our figure. The head was bent somewhat to the right.

A. Of the intensity of the action there can be no doubt. As to the kind of action, a half-dozen or more possibilities present themselves.

1. The attitude of the Munich athlete pouring oil into his extended left hand (Brunn, *op. cit.*, No. 132) is somewhat parallel. But, as it does not approach this figure in intensity of action, it may be dismissed at once.

2. That it was a sandal-binder, like the Lysippian Hermes in the Acropolis Museum (*Mittheil. arch. Inst., Athen. Abtheil.*, xi, Taf. ix), supposed, before the head was found, to be a charioteer, or like the so-called Jason (Brunn, *op. cit.*, No. 67), is hardly possible. The inclination of the head of our figure to the right is not a significant difference. Some of the replicas of Jason in Clarac, *Musée de Sculpture*, vol. v, plate 814, also have the head turned to the right. But the feet of our figure are clearly out of reach of the hands. However much the right leg were bent at the knee, that foot would be too far away to be brought up within reach even of the left hand, with its favorable slant given by the sloping shoulder. And, as for the left leg, we have seen that this was far in the rear.

3. The attitude of tension might suggest a charioteer, with the right hand, which usually held the goad, brought back at a moment when the application of the goad was not called for, and when the whole strength of the left arm, and more, too, was called into requisition to hold the horses. But it is not likely that the left leg would be thrown so far back when a strong brace was needed to support the left arm. In the Acropolis bronze, representing probably a charioteer (*Jahrbuch d. d. arch. Inst.*, i, 173), we see the left leg, as we should expect, braced to support the left arm, and the right arm also reinforcing the left in reining in the horses. In our figure the right arm was thrown too far back to have been so used.

The left shoulder thrust out over the right leg, with the left leg thrown back, so far from being a bracing attitude, is less so than that on the strength of which Friedrich Hauser (*Jahrbuch d. d. arch. Inst.*, ii, p. 95 ff.) threw out the Tux bronze from the category of charioteers. The whole attitude of our figure is not that of strength exerted backwards, but of strength in onset.

4. The possibility that this is a wrestler must be conceded.

Neither hands nor feet are preserved, and among the numerous *σχήματα* of wrestling, something parallel to this position might be found. But it would seem strange that the right arm should be far in the rear at the moment when a wrestler was making a fierce movement to the right. Moreover, before resorting to the idea of a group, for which we have no warrant, we ought to try to explain the figure by itself. This consideration might also make us pause before resorting to the idea of a boxer or of a warrior in combat.

5. The great objection to accepting the theory that the figure is a boxer, is the contradiction in that case between the left shoulder, which is thrown forward as much as it can be without dislocation, and the arm, which seems to turn downward. But even if we are mistaken as to the direction of the arm, and the left hand is to be thought of as planting a blow, what can the left leg be doing, skulking in the rear at such a critical moment?

6. If we wish to explain the figure as that of a warrior, a natural parallel would be that of the Naples Tyrannicides. Of these two figures (Brunn, *op. cit.*, Nos. 326, 327), Harmodius resembles ours more in the position of the legs, while Aristogiton resembles it more in the position of the arms, though neither has the intensity of action here shown. But these illustrate the fact that a man does not attack criss-cross, but throws a whole side into the onset. The Borghese Warrior (Brunn, *op. cit.*, No. 75) has his legs and arms distributed more nearly like our figure, but his left arm is much more raised, and his head turned to the left. Of course it is recognized that he is not in onset, but is watching an antagonist with a view to making an onset. A nearer parallel is found in a figure from the Mausoleum frieze.¹ The parallel would be complete were the left shoulder thrown a little more around to the front, and the right arm more to the rear. A single glance reminds us that the figure in the frieze is running rather than fighting. The warrior from Delos in the Central Museum at Athens (Brunn, *op. cit.*, No. 9) might claim a comparison, but he is altogether too much bent over toward the right knee, and the left leg is not nearly far enough to the rear.

¹ OVERBECK, *Geschichte der griechischen Plastik*, 4th Ed., Vol. II, plate opposite page 107; 2nd group of 1st series.

7. Perhaps the first thought of nearly everyone on first looking at our figure would be that we have here a discobolus, largely perhaps because we have come to take Myron's discobolus as the natural example of strained effort. A more careful look will easily convince us that we have not *Myron's* discobolus before us, if we take, as we well may, the Massimi discobolus (Brunn, *op. cit.*, No. 256) as a copy of Myron's famous bronze. The arms and head afford an exact parallel, but the body is bent forward and the left leg not carried so far back. Of course a discobolus may assume a variety of attitudes. We have one indeed in the form of a herm, exhibiting thus a very stable equilibrium for Myron's most delicate balance (Brunn, *op. cit.*, No. 329). No other discobolus would be likely to afford so near a parallel to our figure as the Massimi copy. The quiet discobolus of the Vatican (Brunn, *op. cit.*, No. 131) is no more a case in point than an unpublished bronze from the Acropolis, holding the discus in both hands above his head, or a similar one in the British Museum given in Murray, *History of Greek Sculpture*,² Vol. I, p. 234.

In one way only could we conceive of our figure as a discobolus, viz., as in the act of launching the discus with his left hand. There is in a vase-painting published in the *Archäologische Zeitung* for 1878, pl. XI, a figure throwing the discus with the left hand, but this left-handed thrower stands almost if not quite alone among discoboli.

8. The theory that the figure is a dancer, is one which it may be still more difficult to reject. The Pyrrhic dance especially was one requiring energetic motions. The Naples Faun (Clarac, *Musée de Sculpture*, Vol. IV, pl. 717, No. 1715 A) is in much the same attitude as our figure, but the left arm is too much raised and not enough to the front. The same may be said of the Faun presented in Clarac, Vol. II, pl. 179, No. 170. A small unpublished Acropolis bronze has the legs like our figure and the left hand raised above the head, as for a dance.

9. However possible and even attractive other explanations of the figure may be, the simple and just one seems to be that it is a runner. We see the right leg thrust forward, likewise the left arm thrust forward to balance it, and so far to the front as to give the last possible moment in which this attitude can be maintained.

The left leg and right arm are to the rear, but just ready to take the place of those limbs that have held the front as long as they can. The arms are used in the action for their full value, just as they are in pictures of runners in vase-paintings (Cf., *Monumenti Inst.*, x, pl. 48 m). It is noteworthy that in this, as in most vase-paintings, the arm and the leg of the same side go forward together. We might call the runners "rackers"; so in some early bronzes, as in Carapanos, *Dodona*, pl. xi. This scheme may be explained from a desire to show the body in front and the legs in profile. Most of the runners, however, in *Monumenti Inst.* x, pl. 48 e3, are running naturally like our figure, except that the left leg is the one thrown to the front. Our runner is running at his full speed, and not stooping forward at a goal, as is perhaps the Naples runner in Clarac, v, pl. 863, No. 2196 A, the attitude of which is something like that of the figure in the East pediment of the Ægina temple, stooping forward to pick up the fallen warrior.

Sculptors, who were so much devoted to athletes, could not fail to notice that it was the runner who caught the popular eye. Xenophanes (ii, 17, Bergk) says of running:

τό πέρ ἐστι πρότιμον
ρώμης ὅσος ἀνδρῶν ἐργ' ἐν ἀγῶνι πέλει.

It is not strange that we hear especially of the Ladas of Myron, and that the hoplitodromus Epicharinus of Critius and Nesiotes is singled out for attention by Pausanias. In Athens especially did running come to honor, and at the campadodromia of several festivals the ephēbi had their separate running matches. We need not be surprised, then, to find an Attic ephēbus sculptured as a runner.

It is not strange that attempts have been made to reduce to runners figures that have long passed as something else. Hauser's argument above referred to, maintaining that the Tux bronze represents not a charioteer but a hoplitodromus just drawing up to pass the turning-post, is accepted as convincing by both Overbeck and Collignon in their recent histories of Greek sculpture. With the Tux bronze must go an Acropolis bronze still unpublished, so much like it as to pass for a replica. The attempt of Rayet in *Monuments de l'Art Antique* to make of the Borghese Warrior also a hoplitodromus has not proved equally convincing.

B.—The attempt to assign this figure its place in the history of sculpture is made difficult by the lack of a head. It may happen that a head has a more or less archaic appearance than a body which belongs with it. Archaeologists will not forget the case of the Ptoian Apollo above referred to, the body of which, found a year before the head, seemed so little archaic that there was little thought of dating it back of the middle of the 5th century, whereas the head was so archaic as to make the discoverer, M. Holleaux, almost willing to resort to the doubtful explanation of the statue being a copy of an earlier one, in order to harmonize that archaic head with an inscription declared to be from the middle of the 5th century (see *Bull. de Corr. Hellen.*, xi, p. 285 sq.)

A head might modify judgment in either direction as to the age of this torso, but judging by what we have, and proceeding with caution, if not with diffidence, we may propose a place for it. It is almost certain, when we take into account the subdued technic, the restraint shown in working out the muscles, that we have no late work. The contortions of Laocoon, of the figures in the Pergamon reliefs, or of the votive offerings of Attalus, find no nearer parallel here than do the negligent poses of Praxiteles' figures. The action is the great thing.

The intensity of the strain reminds one of Myron. Myron's devotion to the expression of life through movement seems to confront us here. What Quintilian (ii. 13. 10) says of the discobolus, *distortum et elaboratum*, seems applicable. Had we the legs and arms preserved, we should see more of movement; but legs and arms are not the only bearers of movement. The body, the very centre of the physical frame, shares the movement, not as a subsidiary partner, but as the originator of the action. Of Myron's Ladas, the runner, Brunn (*Gesch. der gr. Künstler*, i. p. 150) says: *Der Ausdruck der höchsten Lebendigkeit beruhte also hier hauptsächlich auf dem scharfen Erfassen der Wechselwirkung aller Theile in einem einzigen Moment in welchem die gesammte Lebensthätigkeit wie auf einen Punkt zusammen gedrängt erscheint.* This passage read with our torso before us seems almost like a running commentary on it. Myron delighted in seizing a single moment of activity which in a flash must turn to something else, and we have seen that our statue is in just that position. Nowhere do we get a clearer

illustration of what Pliny (*N. H.* xxxiv. 58) meant when he said that Myron was *in symmetria diligentior* than Polyclitus. It took more care to adjust this strained body than those quiet figures of Polyclitus. How could a figure be more symmetrically adjusted than this?²

To say that this torso is Myronian would be *ein grosses Wort gelassen auszusprechen*, but if restraint in form and utmost daring in position, *de l'audace et encore de l'audace*, is Myronian, we might almost bring the *grosses Wort* over our lips. It is perhaps not too much to say that if the sculptor who made the original of the Massimi discobolus were to make a runner he would make him like this. In fact, from what the ancients say, we should suppose that Ladas looked something like this.

But, besides this general similarity of attitude to Myron's figures, our figure has at least one special feature of style which we may bring to the support of our designation of Myronian. The style in general is certainly not opposed to this designation. Quintilian's *molliora* (*Inst. Orat.* xii. 10.7) applied to Myron does not disclaim for him something of the spare and severe style of his predecessors, the old Attic sculptors. The *pubes* hair is a most important criterion. Pliny (*N. H.* xxxiv. 58) says of Myron: *Capillum quoque et pubem non emendatius fecisse quam rudis antiquitas instituisse*. In default of a head we are directed to the peculiarity of the *pubes* hair. We might hope to find in this some of the old-fashioned style of Myron. We do, in fact, find a most striking peculiarity here, which seems to have appeared in sculpture only at or about the time of Myron. Not to mention the fact that the hair is wrought only in a sketchy manner, its shape arrests attention at once. It may be described as consisting of two parts, a lower part forming a sort of ring about the *membrum virile*, and an upper part in the form of a flat isosceles triangle with its equal sides somewhat concave. This is the description which

² For a commentary on the passage quoted from Pliny, see BRUNN, *Geschichte der Griechischen Künstler*, p. 163; also KEKULÉ, *Ueber den Kopf des Pseudelischen Hermes*, p. 16: *Ich glaube es soll durch die Worte, wie sie überliefert sind in der That der Preis einer grösseren Schwierigkeit, der Preis eines höheren Aufwandes von Mühe und Fleiss in der Erreichung der Symmetrie den lebhafter bewegten Myronischen Gestalten gegenüber den ruhigeren und einförmigeren des Polyklet zuerkannt werden.*

Hauser (*Jahrbuch d. d. arch. Inst.* II, p. 105) applies word for word to the Naples Tyrannicides, which are generally supposed to be copies of the work of Critius and Nesiotes, and to date from the time immediately following the Persian War. Hauser calls attention to the same peculiarity in the Tux bronze, and on the strength of it claims the figure for a copy of the Epicharinus of Critius and Nesiotes. This Tux bronze has usually been regarded as belonging to the Æginetan School, and this suggests a comparison on the point under discussion with the fallen warrior of the East Ægina pediment (Collignon, *Hist. de la Sculpture Grecque*, plate IV) where, with the exception of a slighter concavity of the sides of the triangle, the coincidence is exact. Graef (*Mittheil. arch. Inst. Athen.*, xv, p. 12) would extend the peculiarity also to the Olympia temple-sculptures, although it is doubtful whether the concavity appears there at all. It is a striking fact that a vase-painting of Euphronius in Hartwig's *Meisterschalen des strengen rothfigurigen Stils* shows the same peculiarity of form. This vase, for the exactness of the reproduction of which in this particular Hartwig vouches verbally, may be dated at about 470 B. C. Plates LXII 2 and LXIII 2 of the same work show exactly the same peculiarity. Less perfect examples may also be seen in plates XXVI, XLVII and XLIX. All these examples seem to put this peculiarity into a period of some fifty years, with the Persian War about in the middle, and in the latter part of which Myron would fall.

There is then no rashness in finding for our figure or its original a date as far back as that of Myron. The question whether our figure is a copy or an original work is one that forces itself next upon our consideration. If it is a copy, it is still of great value as material for the history of sculpture, allowing us to picture to ourselves how one of Myron's runners looked. But it is perhaps an original work of Myron. Although he seems in general to have shunned marble, our record is far too incomplete to allow us to reject the possibility of his having wrought the figure himself. The general impression which one receives at first glance, and which is deepened by repeated contemplation, is that it is not the hand of a copyist that we see here, but that of a master.

Possibly it may be difficult, when we descend to details, to make an array of items strong enough to convert this impression

into a conviction. Still it is well to call attention to the combination of a general hardness of manner with a softness of modelling in the breast, a combination which a copyist would have been likely to miss. The figure also shows nowhere a plane surface, the nearest approach to it being at the right breast. To prevent this wooden appearance the hip has a gentle hollowing out, as has also the thigh on the inside.

The abdomen consists of three perpendicular hollows and two ridges. The back, which is a masterpiece of modelling, has also three hollows with corresponding ridges. There is a deep hollow under the left shoulder. The line of demarcation between the hips and the body is almost lacking. We see here none of that appearance of the fat of the body falling down over the hips which appears in many statues. There is a double swell of muscle extending across the body above the navel, and a single one below it. The triangle of the *pubes* is echoed by a slight triangle enclosing the navel. The furrow down the middle of the breast is interrupted by one considerable swell and another almost imperceptible one above and below it. One hardly knows where to bestow the most praise—on the back, the chest, the abdomen, or the remaining thigh. It is the master's hand alone that gives all the details in perfection. There is plenty of room for this figure in the list of Myron's works given in Pliny (*N. H.* xxxiv. 57), under the phrase *Delphicos pentathlos*. It would also not be unnatural that a work of Myron's art should be found along the Sacred Way, the main thoroughfare overland from Athens not only to Eleusis but also to Delphi and all the world besides.

RUFUS B. RICHARDSON.

American School of Classical Studies at Athens,
January, 1894.

CORRESPONDENCE.

PRELIMINARY REPORT FROM PROF. WALDSTEIN ON THE EXCAVATIONS AT THE ARGIVE HERÆUM IN 1893.*

To the Managing-Committee of the American School of Classical Studies at Athens.—

GENTLEMEN—I herewith give you a very brief account of the main features of our excavations at the Argive Heræum during the past spring. Before all, I wish again to acknowledge the valuable help which in this year also members of the School have given to the work. Dr. H. S. Washington came from Germany for the express purpose of assisting me in the excavations. He acted as second in command, and, owing to the experience which for several years past he has acquired in such work, as well as to his enthusiasm and unselfish devotion, his services were such that I can hardly realize how the undertaking could have been carried out as it has been without his co-operation.

Messrs. Lythgoe, Meader and Norton took part in the excavations from the beginning to the end, and each had charge of definite portions of the site as responsible overseers and directors of the workmen under their command. These gentlemen, with Dr. Washington, remained on the site, and continued the excavations for several days after I was forced to leave, and during these days some of the most interesting objects of sculpture were found. Mr. Paton also joined us for several days, and took charge of some trial excavations which were carried on near the village of Koutzopodi, not far from the site of the ancient Oenoe.

We pitched our camp on the rocky elevation above the older temple on March 30, and at once engaged workmen, and were enabled to start the next day with 112 men and 23 carts. On April 1 we had 180 men and 30 carts; on April 3, 200 men and 38 carts. Our force at last reached the number of 240 men. We began to excavate on the upper plateau, the site of the older temple. This upper plateau is marked on the map of last year's excavation by the letter A (see PLAN in *Amer. Jour. Arch.*, VIII, PL. XII). We cleared off all the top soil down to the early substructure, about 45 m. in width by 35 m. in

* Reprinted from the *Twelfth Annual Report of the Managing Committee of the American School of Classical Studies at Athens.*

depth. The burnt layer alluded to in my report of last year again appeared on various portions of this site, together with masses of poros stone, which had evidently been split into smaller pieces by the heat of a great conflagration. We were fortunate enough to find still standing on this terrace a portion of the early wall, about 14.30 m. in length by a little over one m. in height, which certainly must have belonged to this interesting structure, perhaps the earliest temple of Hellas. The presence of this piece of wall may prove of exceptional importance, inasmuch as its lower portion was evidently not visible at the time the temple was completed, and the objects found below this line would thus antedate the erection of the temple. Two other stones appear to be *in situ*. But it is impossible at this moment to hazard even a suggestion with regard to the construction of the early temple. At all events, we have cleared this important site, and it is now in a state to be carefully studied for the light it may throw upon the earliest history of civilization in Greece. The yield in objects of early ceramic art, some bronzes and peculiar rude engraved stones, was very rich and of extreme importance and interest. I have little doubt that these finds alone are of sufficient weight to justify the energy and money expended upon the undertaking, as they are sure to throw most valuable light on the history of the earliest art in Greece. We dug two broad trenches outside the cyclopean wall to the east and west of the plateau, in order to make sure whether there were any objects of interest which had fallen over the supporting walls.

When the work on the platform of the older temple was completed, we made the slope from the upper terrace down to the terrace of the second temple the centre of our exertions. It was exceedingly difficult to excavate on this site, because the existence of buildings at the immediate foot of the slope had already been proved by our discovery last year of the outer line of the stoa marked C on the map (*Amer. Jour. Arch.*, VIII, PL. XII). We had therefore to work with great care from above, immediately below the cyclopean wall of the upper terrace, and had to construct a steep road leading from the point marked T to the top of the slope, dumping our earth either at the southeast dump or at the southwest dump. When we had dug several feet below the cyclopean wall, we at once came upon very rich layers of early pottery of all descriptions, and soon found various vestiges of buildings. These were erected on the height above the buildings corresponding to the North Stoa, and immediately below the cyclopean wall. They consisted of portions of walls built of loose unhewn stones placed together without mortar or clamps, and evidently formed the

smaller, perhaps domestic, counterpart to the structures known as cyclopean walls. The objects found in some of these make it not improbable that they may have been the houses in which dwelt the priestesses or attendants of the earlier temple, though I should not venture upon any hypothesis at this moment with any claim to your serious consideration. There are also traces of a rough pavement sloping downwards from about the middle of the cyclopean wall (below it) to the west, and behind the back wall of the building which we call the North Stoa. This may have been an early road leading up to these dwellings. With due care to preserve the remains of these early buildings, we dug down to the native rock on this slope; and then came the task of clearing the whole series of buildings on a line with the stoa. The length of these structures is about 100 m., with an average depth or width (including the back walls) of about 10 m.

Of the North Stoa merely the outer stylobate had been discovered last year. Behind this the inner colonnade measures 8.65 m., and is backed by a wall of over a meter in width, which is built against the slope. There were at least nineteen pillars running along the centre of this North Stoa. Some of the pillars were found *in situ*. There is also an interesting system of drains and waterworks attached to this building, with some curious structures within it, which, however, are probably of a later date. But I do not think that this can be assumed of a curious structure toward the northeast corner of the east end of the stoa as excavated last year; it is a depressed flat cemented surface 3.80 m. in length by 3 m. wide, reminding us of the Bath of Tiryns, and probably serving the same purpose. The North Stoa runs from a few metres to the east of the east end discovered last year, for 55.52 m. to the west, ending about on a line with the east end of the second temple. A more intricate building was discovered to the east of the stoa, extending further east than the eastern limit of the cyclopean wall of the upper terrace. The original structure, of which much is still standing, was evidently rebuilt at a later period; and the stone inscribed with DFONYEIO, i. e., Δε Φορείου (containing, as you observe, a digamma) was evidently immured at a later period. I have no doubt that this building, which consisted of several chambers, will become clearer to us when we have studied it carefully. The excavation itself was only completed at this point during the last days.

Besides a rich field in pottery, terracotta, bronzes and smaller objects (among which I must mention a later clay clasp containing the figure of the Polykleitan Doryphoros), this building yielded a

beautiful torso of a draped female figure, probably from the metopes of the temple, three fine marble heads, and many other fragments.

Together with this work at the northeast portion of the second platform, extensive excavations were carried on at the southeast corner. The ground to the east and north of the house F was levelled; while to the outside of the wall X the trench was continued, and interesting walls or steps were laid bare as far as the dump. Both these points yielded a very rich harvest of ceramic and bronze works, engraved gems and glass scarabs. I must also especially mention a number of terracotta tiles, or rather plaques, with painted decorative designs upon them. They are really *pinakes*, and as such the earliest specimens yet known.

South of the foundation-walls of the second temple the whole ground was cut away at the level of last year's deep cutting at the southwest angle of the temple. Below and slightly to the west of the house F a deep and wide trench was cut. In all these cases we came upon layers that antedated the construction of the second temple, as was shown by the archaic objects found.

Perhaps the most interesting portion of this year's work will prove to be the excavations at the southwest platform below the second temple. I began by cutting a trench at the southwest corner of the old retaining wall Y, running from west to east. I soon came upon a wall of beautiful Greek masonry, of which four courses of well cut blocks were still standing. We carried this trench on as far as the continuation of the retaining wall at the east of last year's deep cutting H. We then worked northwards up to H. Messrs. Washington and Norton continued to work after my departure, with the result that two sides (and the interior enclosed within them) of a very interesting building have been unearthed, with walls and column-bases *in situ*, the whole presenting a very interesting ground-plan. This building we call the West Building. Below the south wall of this building we also excavated as far as the most western of the broad cuttings on the south slope below the temple marked N on last year's map. Immediately in front of this wall large portions of the entablature of a Doric building were found, upon which were distinct traces of color—reds, blues, greens, *etc.* After my departure other polychrome pieces were found.

Besides interesting smaller objects from this site, a number of fragments of marble sculptures, evidently coming from the second temple, and forming parts of the metopes, and I believe also of the pediments, were found. I must also add that among the heads discovered, one head (probably from a metope) is in excellent preservation and

very nearly equals in beauty the head of Hera found last year; while the torso of a draped female figure from the metopes forms a fitting counterpart to the torso of the nude warrior of last year's metope. The inscriptions are now in the hands of Prof. Wheeler.

We have again had a very successful year with brilliant discoveries, and the promises for the immediate future are, if anything, more favorable. The excavation of the West Building must be completed; the portions to the east and southeast of the west retaining wall below the second temple are likely to prove the ground where temple sculptures were arrested in their fall; the other sites about the second temple must be cleared thoroughly. This work must not be delayed; and I shall use every effort to continue the work, which has been so successful for two campaigns, next spring.

CHARLES WALDSTEIN.

REVIEWS AND NOTICES OF BOOKS.

ORIENTAL ARCHÆOLOGY.

J. NORMAN LOCKYER. *The Dawn of Astronomy.* A Study of the Temple Worship and Mythology of the Ancient Egyptians. 8vo., pp. xvi, 432. Macmillan & Co., New York. 1894.

This is certainly a stirring volume. It is speculative, but speculation of a kind which promises fruitful results. It is the introduction into archæological research of a new point of view, in which astronomical considerations are given great weight in the determination of the age, purpose and history of Egyptian temples and temple-worship. It has, of course, long been known that Egyptian temples were oriented and that Egyptian worship was originally connected with the sun and stars; but now for the first time has the orientation of temples received systematic attention and been made to throw light upon the entire field of Egyptian worship and mythology. It now appears that the great variety in the orientation of Egyptian temples as well as of other ancient sacred edifices, is due not to symmetrophobia, but to solar and siderial considerations; that certain temples like that at Erment, the Memnonium at Thebes, several at Karnak, as well as the Temple of the Sun at Pekin and the Druid remains at Stonehenge, are oriented with reference to the summer or winter solstice, and hence may be designated solar *solstitial* temples; others at Memphis, Sais and Tanis, as well as at Jerusalem, Baalbek and Palmyra, are oriented with reference to the sun at the equinox, and hence are called solar *equinoctial* temples; a third and very large class of temples are oriented, not with reference to the sun, in fact the sun never enters them, but they are oriented with reference to specific stars, and hence are called *stellar* temples. That stars were observed in the alignment of temples in Egypt is evident from the inscriptions concerning the building of temples at Denderah and Edfû. These inscriptions are important enough to be quoted here. The first reads: "The living god, the magnificent son of Asti [a name of Thoth], nourished by the sublime goddess in the temple, the sovereign of the country, stretches the rope in joy. With his glance toward the *ûk* [the middle?] of the Bull's Thigh constellation, he

establishes the temple-house of the mistress of Denderah, as took place there before." At another place the king says: "Looking to the sky at the course of the rising stars [and] recognizing the *āk* of the Bull's Thigh constellation, I establish the corners of the temple of her Majesty." The Bull's Thigh is identified as the Great Bear, and is again the constellation observed in laying the foundation stone of the temple of Edfū. The inscription here reads: "I have grasped the wooden peg and the handle of the club; I hold the rope with Sesheta; my glance follows the course of the stars; my eye is on Mesyet [that is, the 'Bull's Thigh constellation,' or Great Bear]; (mine is the part of time of the number of the hour-clock); I establish the corners of thy house of God." And in another place: "I have grasped the wooden peg; I hold the handle of the club; I grasp the cord with Sesheta; I cast my face towards the course of the rising constellations; I let my glance enter the constellation of the Great Bear (the part of my time stands in the place of his hour-clock); I establish the four corners of thy temple." From this point of view the orientation of a large number of temples is noted and classified with reference to specific stars. This leads to a distinction which must be drawn between the cult of northern as opposed to southern stars. "In short, in Lower Egypt the temples are pointed to rising stars near the north point of the horizon, or setting north of west. In Upper Egypt we deal chiefly with temples directed to stars rising in the southeast or setting low in the southwest."

The wide bearings of this study will be evident from a perusal of this volume, even though we may not be able to follow the author to the full extent to which he drives the new point of view. It throws new light upon the ceremonials of not only Egyptian but ancient ritual in general, by enabling us to appreciate the effect of the priesthood upon the people by the arrangement of their temples in such a manner that rays of the sun or of particular and bright stars should be carried through a long succession of pylons or doorways so as to illuminate the inner sanctuary once a year. It revivifies mythology by the identification of divinities with particular phases of the sun or stars and explaining the myths which arise from their interaction. And, when the subject is studied in its wider aspects, we may see here an index, more or less reliable, of the inter-relation of different star-worshipping races, and thus be led to a reconstruction of ancient history.

It is an interesting substantiation of the value of the study, that Penrose (*JOURNAL*, VIII, 257) has followed the same line of investigation concerning the temples of Greece, and that similar orientation of tem-

ples has survived throughout the Christian era. Nevertheless we cannot go so far as to wish, with Mr. Lockyer, that astronomers and archæologists were interchangeable terms. So complex is the evolution of civilization, that no one line of investigation is likely to give us the final word as to the chronological series of ancient monuments. Students of history, of mythology, of language and of art, must all be united in the result. The tabular forms and chronological sequences which astronomers are now presenting, though formulated under the inspiration of mathematical and exact method, are nevertheless as yet only hypotheses requiring verification from other sources.

ALLAN MARQUAND.

MAX OHNEFASCH-RICHTER.—*Kypros, the Bible and Homer*. Oriental civilization, art and religion in ancient times. Elucidated by the author's own researches and excavations during twelve years' work in Cyprus. 2 vols. 4to, pp. ix, 530; plates ccxviii. Asher & Co., London, 1893.

This work is a veritable corpus for the illustration of Cypriote antiquities. It may not portray as fine a series of monuments as those described in the unfinished Descriptive Atlas of the Cesnola collection, but it will be more useful to the archæologist, for it is the result of labors conducted in a more systematic and scientific manner. One has merely to turn over the pages of either volume to be impressed with the prodigious labor of the indefatigable excavator and recorder.

Perhaps the best method of setting before our readers the scope of the work will be to publish a table of its contents. This we do the more willingly since the book itself, though provided with an excellent geographical and general index, is unaccompanied by a table of contents. We retain the author's varied spelling of proper names and use of capital letters.

Chapter 1. Ancient Places of Worship in Cyprus.

Chapter 2. Tree Worship and the Transition to Anthropomorphic Image Worship.

I. The Holy Tree on Cyprian antiquities.

1. In the Pre-Græco-Phœnician copper-bronze period.
2. Tree Worship in the Græco-Phœnician iron period down to Roman times.

II. Cyprian Tree Worship and Tree Ornament compared with those of other Eastern Countries.

1. Hissarlik and Kypros.
2. Mykenæ and Kypros.
3. Representations of trees, holy and profane, in Egypt and Cyprus.

4. The holy and profane trees on Babylonian and Assyrian monuments, compared with the Kyprian.

III. Trees and Tree-gods, dendromorphic and anthropomorphic idols, their transitions and transformations.

1. Divinities dwelling in trees or issuing from trees.
2. Images of gods of vegetation and their compendia.
3. From trees, posts and planks anthropomorphic idols gradually originate: these are at first shaped like posts or planks.
4. Plants grow from gods of human form: gods create plants.
5. Some further holy trees and tree-gods of the Kyprians and Hebrews.
 - (a) The pomegranate tree.
 - (b) The terebinth.
 - (c) The oak and olive.

IV. Tammuz, Adonis, Osiris, Linos and allied gods of Babylonians, Hebrews, Egyptians, Kyprians and Greeks. The Asheroth, the Masseboth and Chammanim.

1. Adonis and Tammuz.
2. Aōia-Adonis-Aphrodite Trees: Attis-Artemis Trees. Gardens of Adonis. The Asheroth, Masseboth and Chammanim.
 - (a) Trees in the groves of Aphrodite and Artemis.
 - (b) Gardens of Adonis. Offerings of flowers, fruit and wands.
 - (c) The Asheroth, Masseboth and Chammanim of the Bible; holy slaves and lances in the Bible and Homer.
3. Anthropomorphic images of the Youthful God of Vegetation and Plants, and of his mother.
4. Names and local cults of the Youthful God.

Chapter 3. Worship of Divinities and fabulous beings.

- I. Imageless worship of divinities in Kypros and other countries.
 1. Imageless Rites, especially to mountain and storm divinities. Imageless altar-rites.
 2. Hebrew and Kyprian cults connected with mountains, valleys, springs, rivers, the sea and caves.
 - (a) The Bāmôt. (b) Fountains, brooks and rivers. (c) The sea. (d) Caves. (e) Fire, sky, sun, moon and stars.

II. The Ox and the Horse in Cultus.

1. Representation of the ox.
2. The goddess with head and horns of a cow.
3. Bulls and Calves. The Man-Bull and the Man-headed Bull as divinities. Horned divinities.
4. Horned Men and Horned Centaurs, Winged Centaurs and Winged Horses.
5. Minotaurus, Ariadne, Dionysos and Europa.

III. The principal feminine deities and demons of Cyprus, and some of their counterparts in other lands.

1. Astarte-Aphrodite.

(a) The stone cylinder of this goddess and her oldest anthropomorphic idols in the copper-bronze period. (b) Mortals and immortals: images of Astarte-Aphrodite and her priestess, servant or sacrificant. (c) Some of the most important types of Astarte-Aphrodite images.

2. The dove and other animals sacrificed by the Kyprians and Hebrews to Astarte-Aphrodite and other deities.
3. Doves and dove-goddesses in Kypros and Mykenæ.
4. The Cyprian Astarte-Aphrodite and the Etruscan Hera-Kypra. Hare goddesses, Bird goddesses and Potniæ Theron.
5. Astarte, Aphrodite, Atargatis, Derketo and Semiramis, Fishes and Fish-demons. Ornithomorphic deities. The Harpies and Sirens.
6. Astarte, Semiramis. The winged sun-globe and winged bust of a god.
7. The soul of Osiris. The dove as Holy Ghost.
8. Harpies, Sirens and Erinyes.
9. The material Astarte-Aphrodite and Anat-Athene in Kypros.
10. Astarte-Aphrodite and Tanit-Artemis-Kybele. Demeter and Persephone.
 - a) The Kyprian-Artemis type with arm-stumps.
 - b) The archaic drapery and attitude of the Kyprian Artemis and her priestess.
 - c) Greek standing figures of Artemis in Kypros with veil, modius and seal.

- d) Artemis more freely represented. The goddess as huntress accompanied by stag, deer or dog. Artemis Kybele with the lion. The goddess as maiden.
- e) The Artemis group from Kition belonging to the School of Praxiteles.

IV. The most important male divinities and dæmons of Kypros compared with some of non-Kyprian origin.

- 1. Baal and Zeus.
- 2. Melquart, Herakles and Marduk-Merodach.
- 3. Resef-Apollo. (a) Resef-Apollo as Spear-god. (b) Resef-Apollo as god of trees and groves, of incense and healing. His attributes are the asperges, the fawn, the eagle, Nike Apollo and Zeus. The god of music. (c) Further particulars of Resef-Apollo as war-god, sun-god, weather-god. Resef-Mikal and other analogous divinities.

Appendix I. A comparison of the festivals of Oriental vegetation divinities with those of southern and northern Europe.

Appendix II. Gold objects found in Cyprus. By Herr Direktor Frauberger.

Explanations of the plates.

A table of contents such as this speaks for itself. We have before us an immense accumulation of material, so much so that we weary with the volume, however much we may be interested in its contents. We do not need to know the names of all who contributed in any way to the production of the volume; and yet in his preface Dr. Richter bows his acknowledgments to no less than sixty-eight scholars and museum directors, draughtsmen and photo-chemists, as if each one would feel himself the more complimented by being included in so large a company.

The same lack of selective ability permeates the volume. We appreciate the difficulty of handling so large a mass of material, of seizing the important characteristics, of instituting proper comparisons and of forming stable generalizations, and we are grateful for the amount of order which is here brought into a great chaos of antiquity. Descriptive material, though relegated to a section by itself (explanation of the plates) nevertheless occupies a considerable portion of the text and numberless monuments are set before us, like sand upon the seashore, not thoroughly co-ordinated. In spite of the excellent and elaborate analysis exhibited in the table of contents many subjects are not exhausted under their proper headings. We are referred again

and again to a continuation of the same subject under other sections, and finally, as if in despair, to the general index. The number of illustrations is also so great, more than two thousand, and the references to them so constant, that one wishes that more illustrations had found their way into the text, leaving fewer to be sought for in the plates. The labor of finding the illustrations is increased in many cases by wrong references. We have not sought to correct them all, but may mention that in addition to those corrected by the author under the heading "errata and additions" wrong references to figured illustration may be found on pages 43, 53, 60, 63, 69, 74, 76, 87, 94, 95, 100, 107, 108, 122, 137, 149, 152, 234, 291, 292, 306. This is only one of many directions in which the proof reading is very carelessly done.

Another result of being overmastered by his material is the frequency with which the train of thought is broken and disconnected. One example of this will suffice. On page 199 we are told that it can be proved of certain cultus statues that they originally held a spear in their hands. We naturally look for the evidence which might easily be given, but the current of thought is immediately checked and our attention is called to the subject of sphinxes. The reader will be constantly subjected to such little disappointments. This style of writing reminds us of ancient reliefs, in which the sculptor abhorring a vacuum fills every available space and emphasizes the important figures by making them larger than the rest. So our author, having spread before us a mass of facts with little literary perspective resorts to widely-spaced or heavily-leaded type whenever he wishes to impress the reader with the importance of his remarks.

Dr. Richter's archæological, as distinguished from literary, perspective is much greater. He sees the antiquities of Kypros in their relations to Egyptian and Mesopotamian civilizations and especially, as the title of the book indicates, to Palestine and ancient Greece. The archæological vistas he sets before us are certainly inspiring and enlightening. But even in this direction he too frequently drops his archæological telescope and, viewing objects as individuals rather than as members of a historical series, he records meaningless, accidental resemblances, when more natural and historical analogies are before his very eyes. Thus on page 180, wishing to explain as sun rays a form on the gold foil shrine from Mykenai, he refers back to fig. 12 (containing forms without any analogy) and explains as "sun's rays" that which on page 84 he had carefully shown to be "twisted twigs or myrtle ropes." On page 110 he gives to fig. 133 an important position as illustrating a supposed transition between tree and anthropomorphic worship. The supposed resemblance of this sacred tree to a "human

form wearing a massive crown and terminating in tendrils" is the same kind of resemblance which Vitruvius found between the Ionic column with its volutes and the figure of a woman with her curls. Now he sees phallic emblems in cases where the evolution from tree to post is evident from his own proofs, and again, dropping the phallic theory when it would seem most applicable, he likens such stones as those represented in figs. 152-155 to "columns" and "stone chisels." He speaks (p. 74) of the papyrus as a "tree most prominent on Egyptian monuments," but shows (pp. 105, 106, 125) that he confuses it with the lotus. A careful study of Prof. Goodyear's writings would clear up more than one misinterpretation of Cypriote forms. He claims to be able to classify Cypriote monuments chronologically even to decades, but makes use of such knowledge most sparingly, preserving a proper vagueness when not resting his chronology upon the conclusions of others. He speaks of Kypros as a great caldron, in which divinities and myths are fused. This may justify his use of such compounds as "the Duzi-Tammuz-Adonis-Osiris-Harpokrates child" (poor child!), but does it justify his fusing together two individuals of to-day, as when he speaks (p. 241) of a votive figure being found by Cesnola-Stern? This suggests the possibilities of discoveries having been made by Cesnola-Richter, but the great caldron has not yet given evidence of such a fusion. In conclusion we may add that though as a composition the book leaves something to be desired and the opinions require to be reorganized before they can be considered as science, and though a disagreeable, personal vanity soils many of its pages, we nevertheless welcome these volumes as by far the most important contribution yet made to Cypriote archæology and congratulate the author on the completion of what he himself calls his "first great work."

ALLAN MARQUAND.

E. A. WALLIS BUDGE. *The Mummy. Chapters on Egyptian Funereal Archæology.* With eighty-eight illustrations. 8vo, pp. xvi, 404. Cambridge, University Press. Macmillan & Co., New York, 1893.

The substance of this book was originally written to form the *Introduction* to the *Catalogue of the Egyptian Collection in the Fitzwilliam Museum, Cambridge*. It contains considerable information, thrown into useful shape, which we should hardly expect from the title of the book. One who wishes for information upon the Egyptian mummy, its significance, the various methods of its embalment, its amulets, *ushabti* and other associated objects, its sarcophagus, *stelae*, vases,

&c., and the various kinds of tombs in which the mummy was preserved, will find his curiosity satisfied by a competent authority. In this portion of the book the account of an Egyptian funeral is specially to be commended as a very vivid picture of Egyptian customs concerning the dead. But, beyond the scope suggested by the title, the volume contains a brief history of Egypt, a list of Egyptian dynasties and the dates assigned to them, a list of nomes of Upper and Lower Egypt, the cartouches of the principal Egyptian kings, a catalogue of Egyptian divinities and sacred animals, a long excursus upon the Rosetta stone, and a list of common hieroglyphic characters and determinatives. The book, therefore, is a handy book of reference, and especially useful as an introduction to the Egyptian departments of European museums.

A. M.

F. E. PEISER. *Die hetitischen Inschriften, ein Versuch ihrer Entzifferung.* Nebst einer das weitere Studium vorbereitenden, methodisch geordneten Ausgabe. pp. 128, 4to. Berlin, 1892.

Many attempts have been made, by Sayce, Ménant and others, to decipher the Hittite inscriptions. This work differs from that of his predecessors, in that he follows a very definite method, namely, that which led Grotefend, at the beginning of the century, to decipher the old Persian cuneiform inscriptions. Besides the bilingual inscription of Tarkondemos, and a second in the Ashmolean Museum, Oxford, there have proved useful a number of impressions of seals with Hittite characters brought from the palace of Sennacherib. As similar contemporary Assyrian seal impressions present the names of princes, the same seemed probable here. Recognizing that some of the seals began with the same characters with which others ended, he reached the conclusion that we have to do with the names Kušašpi and Pisiri, princes of Kummeh and Gargamiš, and powerful neighbors of the Assyrians. Peiser's supposition, that in the Hittite, like the Egyptian, signs representing a closed syllable were repeated by signs of simple syllables, seems probable, but his comparing the Hittite with Turkish is, to say the least, premature.—P. Rost in *Berl. Phil. Woch.*, 1893, p. 696.

HENRY WALLIS. *Typical Examples of Persian and Oriental Ceramic Art.* London, Lawrence and Bullen, 1893.

This work, when complete, will comprise twenty-five parts, of which only a few have thus far appeared. Each part contains two chromo-lithographs from paintings by the author, as well as a text with additional illustrations. The object of the work is to present specimens of Eastern ceramics, with their dates, and if possible their

signatures and marks, enabling amateurs to identify what pieces they possess or desire to purchase. The author is chiefly interested in Persia, but Damascus, Rhodes and Cairo all receive due consideration, as well as the other great centres from which the most beautiful specimens in the public and private collections of Europe have been derived.—*Revue des Études Grecques*, April-June, 1893.

CLASSICAL ARCHÆOLOGY.

HEINRICH BRUNN. *Griechische Kunstgeschichte. Erstes Buch. Die Anfänge und die älteste decorative Kunst.* München, 1893. Verlagsanstalt für Kunst und Wissenschaft.

It has been known for some time that the Nestor of Greek art criticism in our day had in hand a general history of the subject with which his name is inseparably connected, and toward which his contributions have been fundamental and lasting. His *Geschichte der Griechischen Künstler* has been a classic for more than a generation, and when a second edition appeared some four years ago, without change, it was felt that the subject needed supplementing at his hands by a complete history of Greek art, in order to marshal the immense additions of the last twenty years in regular progression and subject them to his masterly criticism. This task had actually been begun some two decades ago, but the discoveries that have come to light so thick and fast have rendered revision continually necessary, especially in the earlier portion of the work. Even now the author does not claim to be writing a complete and exhaustive history, but simply to be laying the necessary foundation for a reconstruction. This he feels it incumbent on him to do, that his life-work may be set in order and he may not leave it to be misused or misconstrued. Simultaneously with his celebration of the fiftieth anniversary of his Doctorate, the first part of this work appears, and the rest is promised in quick succession, being already fairly completed. We express the fervent hope that nothing will prevent the author from seeing it through the press and setting the seal of his own hand upon it from beginning to end.

The part which lies before us covers that period of Greek art which precedes the proper beginning of sculpture in the round, and embraces four chapters: first, the art of the pre-Homeric period; second, that of the Homeric; third, the attitude of the Hellenic spirit toward foreign influences; fourth, the strengthening of the Hellenic spirit. In other words, the aim is to review the oldest products of the Greek feeling for art, define their character, and thus to lay a firm foundation for a comparison with the artistic productions of other peoples.

By pre-Homeric art, our author means that of the Mycenæan period and that of the geometric style represented especially by the early forms of the Dipylon period. It will be seen at once that he coincides with the view now generally accepted, that the Mycenæan period is separated from that of the proper historic time by several centuries, among which he places the Homeric period. Not only is the Mycenæan separated from the historic by the lapse of centuries, but also by the absence from its productions of the peculiar quality which made Greek art great; that feeling for mathematical regularity and symmetry in accordance with which the filling of a given space with ornament is conditioned by the space itself, and grows out of it as an organic whole from centre to circumference. This feeling he already finds established, however awkwardly, in the earliest examples of the Dipylon style, which he attributes to the gradual extension of the influences known in the Peloponnesus under the title of the Dorian invasion that overthrew the Mycenæan civilization, which he classes as Pelasgic-Achæan. In short, he finds that the evidence from the discoveries of the last twenty years re-establishes, in its broader traits, the traditional account which the Greeks gave of their early history, from Minos down. The affinities of the Pelasgo-Achæans he does not attempt to establish definitely, but they had been long settled in the land. If we follow Hoffmann in his treatment of the dialects, they were Aeolians, and we may observe that their art expresses some of the qualities which are attributed to that high-spirited but ill-poised race. Brunn sees Oriental and Egyptian influences acting upon their art, but rightly maintains that his dictum of long ago, that the Greeks spoke from earliest times in their own art language, is also true, to a certain degree, of this period. He points out analogies to Phrygian and Lycian structures, and defines Cyclopes as builders of the encircling wall. He calls the down-tapering column un-Hellenic, but he does not cite an example from any other quarter. In his attribution of the support under the fore feet of the lions of the Lion Gate as an altar, I am pleased to find a conjecture of my own confirmed. This altar occurs in several instances which he does not cite, and seems to extend as far as Cyprus, where it appears on some of the cylinders (Cesnola, *Cyprus*, Plates xxxii, xxxiii), that have at times been called "Hittite," and present certain other analogies to Mycenæan gems. This may not be surprising when we consider the early extension of the "South-Achæans" to Cyprus. The gold objects of the pit-graves of Mycenæ exhibit dexterity and readiness of touch, but are devoid of the truly artistic spirit; while the inlaid scenes of the sword-blades point to a highly-developed technic with strong Egyp-

tian affinities, though they are not Egyptian. Upon this question Brunn does not further enter; but Petrie's recent discoveries of "Mycenean" mosaics and frescoes at Tel el-Amarna may yet give us a clue. It is noticeable that in the sword scenes nothing reminds us of the religious ideas or the hieroglyphic character of Egypt. The same qualities are repeated in the gems, the same wasp-waists for the men, the same scenes of the chase and of conflict. Intended for seals, their language is heraldic; but they also express at times a religious significance; and here they are proof of a period which precedes that of Homer, and they adumbrate that stage of demonic nature-powers which the Homeric theology and its Olympian gods are represented as succeeding, and as having banished to the realms of darkness. Even in the Homeric poems they are continually rising to fresh life, and later perjure in the superstitions of the people, perhaps nowhere more persistently than in "South-Achæan" Arcadia.

Pottery, intended for common use, indicates more truly than the objects of luxury a state of general culture. In speaking of the extension of this ware in Mycenean days, Brunn fails to include Thessaly, which somewhat recently has furnished a considerable quantity. He declines to consider Mycenæ as the single point of manufacture. Comparing the ware of Mycenæ with that of Ialysus, he remarks that the latter exhibits a bald sobriety, the former a rather luxuriant overloading of ornament, which excludes a complete similarity of origin.

In the Baphio gold cups the art reaches its culmination; but these are only a higher degree of the same style as found elsewhere in the period, the product of a phenomenal genius of his time, lifting himself to the highest point of which the art was capable, without some external and powerful influence coming to mould it anew. This period possessed two of the three qualities necessary for high art—a lively imagination, capable of forming a vivid representation of the totality of a thing, and a keen gift of observation for individual traits; but it lacked the intermediate quality which should unite these two into a systematic and higher unity and correlate them mutually according to clearly understood artistic principles. This is quite true, and yet there is much more to be said in praise of the art of this period than our author intimates, except by his studied effort to show that it is not the highest art. He lauds the mathematical spirit of the uncouth Dipylon period; this to him is true Greek. But much more might be said of another characteristic which is as truly Greek, and is possessed by the Mycenean artist as well, the spirit that studied and felt nature, that never rested with its past achievements so long as living force

and vigor failed to realize themselves in its productions. It is not in the Baphio cups alone that this is visible, but upon many of the gems. The excellence of this class of objects has received but scant recognition, partly by reason of the caricatures of them which have been presented in some of our publications. Their minuteness requires a study from casts or electrotypes to be appreciated. These are sometimes better for the purpose than the originals themselves. Many of the gems are of extraordinary merit. I would mention here the dancing girl, the stricken ox, and the creeping lion from Baphio, while some from Mycenæ are scarcely inferior. As regards an artistic filling of the space, an excellent example may be found in the lion-hunt on the sword-blade, where the problem of the half-pediment is most successfully solved.

Passing to the Homeric period and the Shield of Achilles, Brunn maintains that the true spirit of Greek art is now visible in the arrangement of the scenes within the given space, and in the poetic power of their contents. Assyrian art furnished undoubted models for the realism of the shield, but the bald features of a chronicle characteristic of the Assyrian, stands in the sharpest opposition to the poetic conception of the Homeric—that everlasting contrast between Asiatic and Greek, prose and poetry. The Hesiodic shield exhibits the same general principles, but gives evidence of advance, because here, for the first time, the myth enters. It thus forms the proper transition from the mythless Homeric shield to such monuments as the Chest of Cypselus, whose scenes are wholly given up to mythological representations.

Attacking in the next chapter the problem of the attitude of the Greek spirit toward foreign artistic influences, our author cites the bronze shields from the Zeus grotto of Crete, the objects of the Regolini-Galassi tomb and the silver and silver-gilt bowls of varied provenience. Borrowing from Egyptian and Assyrian prototypes is here unmistakable; but the arrangement in concentric circles, which has reached a systematic realization, offers an entirely different system, he maintains—a system which can have sprung only from the Greek, dominated by the geometric spirit, and its union with oriental patterns must have taken place in Cyprus. The function of Phœnicia in the case was merely that of carrier, not of fabricant. Here our author is treading on much debated ground. The employment of horizontal bands is distinctively Assyrian; and, as Perrot has pointed out, the bronze bowls of Nimrud do not differ essentially in character from the work of the Balawat gate, and he believes that the original conception of the class spread westward

from Mesopotamia. Even the principle of the central circle with surrounding zone, each with the space excellently filled, appears on the Assyrian robe (Brunn, fig. 72), and in general the arrangement within the bands of the silver and silver-gilt bowls, that of juxtaposition rather than of unity, is quite what Brunn accepts as characteristic of the Mycenaean spirit. Furthermore, in consonance with the dogmas educed above, the Greeks of Cyprus should be Achæans, and have carried with them the tenets of the Mycenaean art, as they did the "South-Achæan" language; and nowhere do we find the Dipylon style native in Cyprus, while neither the source nor the initial period of the concentric circles on Cypriote pottery is certain. The provincial borrowing of styles from abroad in that island during the historic period is so flagrant that we may well have our suspicions of great originality in earlier times. Brunn dwells upon the Greeks carrying their poetry with them thither; but we have no evidence of it, if their entrance into the island was early. Certainly the Cypria was later than the Iliad, and its long-drawn, continuous flow savors rather of the characteristics assigned to the Mycenaean race than of the Aristotelian unity of the Iliad and Odyssey. Against the Phœnician origin of the style in question, Brunn objects that the Phœnicians never exhibited any distinctly artistic sense, and cites in particular the inartistic form of their letters. In reply, it may be said that neither did the Greeks give an artistic form to their letters until toward the fifth century, with a single exception. This exception is in the oldest alphabet of Gortyna in Crete, where some of the characters were moulded soon after their reception from the Phœnicians, under a definite artistic feeling. This fact bears a striking resemblance to the artistic moulding of oriental types in the shield of the Idæan grotto (Brunn, fig. 63). The proper position of Dorian Crete, in this question, is yet to be ascertained with certainty; but we must not forget the fame which the Greeks accorded her at the forefront of the historic period.

In pursuance of his theory Brunn carries the war into—Mesopotamia. Heuzey and Perrot have already dwelt upon the reflex action of Greece upon the Orient; our author goes further. He assumes that the lifelike representations of the sculptures in the palace of Assurbanipal at Koyunjik are due to the Greek element among the workmen from Cyprus and Cilicia. On no other ground can he explain how a long-practiced art could be so vivified just at its close, and turn into paths almost in contradiction to its previous conditions, save by the introduction of a new principle from without. But we may ask where in Greek art, of the first half of the seventh century,

can any such truth to nature be found as is seen in the hounds and the wounded lioness of Koyunjik? One feels that the theory is seeking to make water rise higher than its source. If these sculptures are by Hellenic artists, we must rather suppose a firing of dormant qualities by contact with the older ways and methods. But the path is not altogether a different one from that of earlier Assyrian productions. It is rather a happier development of similar tendencies, and the same arguments which have been applied by our author to the Baphio cups may here serve to explain the height to which a native genius has raised a portion of the subjects sculptured.

It is not necessary to follow our author through his treatment of the various phases of vase painting, but we must pause for a moment before his Chalcidian heresy. It is no novelty, but it has hardly found sufficient acceptance to make it well known. Epigraphists, dialectologists, critics of vase paintings and Chalcidian art in general, have alike rejected it or silently ignored it. It assumes that all the so-called Chalcidian vases are late imitations or inventions. The assumption is one of wide-reaching consequences, and its acceptance brings many a pretty and ingenious fabric tumbling about the ears. We could have wished that it had not found entrance into this monumental work. For a monumental work it is, however much one may criticise it in single traits. Indeed, it may be said to form the first scientific and philosophical redaction of the earliest phases of Greek art, with a definite comprehension of the whole extent, and a clear and harmonious aim working steadily and unswerving toward its goal. The reader feels the master-mind which has made the subject its own, and seized the spirit which wrought upon the artistic impulse of this early day.

In a history of art, one of the extremely important features is the illustration by which the reader is to obtain a right conception of the monuments treated. An illustration which errs by over-crudeness or by over-refinement is equally misleading and equally vicious. Where possible the photographic reproduction by some of the processes should alone be employed. No one has more emphasized the importance of this than Brunn, by his editing of the fine series of plates in his *Denkmäler*, which has now reached about the three hundredth number. In the volume before us he has employed the process very frequently, but not always with success. On the one hand, the reproduction is inclined to lack clearness and firmness, and on the other he has allowed it often to be reduced too much, so that a glass is necessary to develop the details. Yet, on the whole, unusual care has been taken to present the genuine stamp of the object. We

miss the elegance and finish that characterize French work, pre-eminently the rival history of Collignon; but we feel grateful for all the pains exerted to secure honesty and fidelity.

A. C. MERRIAM.

June, 1893.

CHARLES NORMAND. *La Troie d'Homère*. Exploration artistique et archéologique. Album de l'amî des monuments et des arts, 98 Rue de Miromesnil. Paris, 1892.

A Frenchman here anticipates the Germans in publishing a readable and well illustrated book covering the recent excavations in Hissarlik-Troy, which Schliemann planned and would have executed but for his sudden death. Though it is not customary for scholars to anticipate the publication of foreign excavations, we may rejoice that the author has taken the pains to study the ruins with diligence, and in some cases to have taken original drawings and measurements. Of the seven "cities" of Schliemann he recognized only four, a view which was formerly justifiable, and is adopted by Schuchhardt in his volume on Schliemann's excavations. But since the year 1890 the excavations of the sixth "city" have revealed pottery like that of Mykenai and Tiryns, and cannot therefore be passed by. One who cannot admit the nine different strata which actually exist in the akropolis must at least recognize the following:

- 1.) Original settlement, immediately upon the rock.
- 2.) Several metres high, a stately citadel, with houses, town walls, towers and gates; several times destroyed by fire.
- 3.) Above the ruins of the citadel several superposed villages of plain houses, often burned and renewed.
- 4.) Higher still a citadel with several large buildings and a strong fortification wall, contemporary with the royal palaces of Mykenai, Tiryns and Athens.
- 5.) The three uppermost strata, whose buildings and walls belong to Greek, Hellenistic and Roman times.

The view that the second of these "cities" represented Homer's Troy was tenable before 1890, but now it must be recognized that this city was pre-Homeric, and possibly the historic ground for the myth he relates of its destruction by Herakles. Its pottery has been held to be pre-Homeric by G. Perrot and other scholars. Homer's Troy corresponds to the sixth stratum, measured from below, which as yet has been only partially excavated. Of the uppermost layer, the Græco-Roman Troy, there is here described only the great temple of

Athena and the semicircular theatre-like building, probably belonging to the Augustan era. There is added a useful compilation from inscriptions and literature of the buildings of Troy, as yet not discovered; also a bibliography relating to Troy, consisting of thirteen pamphlets and books of preceding centuries, twenty-nine from the first half of the present century, and one hundred and twenty-two since Schliemann began his excavations.—WILHELM DÖRPFELD in *Berl. Phil. Woch.*, 1893, p. 933.

CHRISTIAN BELGER. *Die mykenische Lokalsage von den Gräbern Agamemnons und der seinen im Zusammenhange der griechischen Sagenentwicklung.* Mit einer Rekonstruktion des Schliemannschen Gräbergrundes und sieben Plänen. Wissenschaftliche Beilage zum Programm des Friedrichs-Gymnasiums zu Berlin. 4to, pp. 42. Gärtner, Berlin, 1893.

The author begins with a careful criticism of the myth concerning the graves at Mykenai, then of the grave of Agamemnon in poetry and pictorial art, then of the account of Pausanias, and finally gives its reconstruction. The reconstruction is evidently correct, proving that the stelae were those of Atreus, Agamemnon, Eurymedon, Cassandra and Elektra; also of the children of Agamemnon and Cassandra, namely, Teledamos and Pelops, and the children of Elektra and Pylades, namely, Medon and Strophios.—W. GURLITT in *Berl. Phil. Woch.*, 1893, p. 785.

JOSEF MURR. *Die Gottheit der Griechen als Naturmacht.* Grundzüge eines einheitlichen Systems Griechischer Götterlehre. Zugleich einleitender Teil 3^a des Verf. 'Pflanzenwelt in der griech. Mythologie. 8vo, pp. xii, 80. Wagnersche Universitäts-Buchhandlung, Innsbruck, 1892.

As the general principle for all the chief Greek divinities, through which they come into existence, the author regards light and moisture as of the widest importance. Not only Zeus, but also Hermes, Apollon, Asklepios, Dionysos, Hephaistos, Pan, Ares, and even Poseidon and Hades, are original male personifications of Heaven, by the side of whom Hera, Dione, Leto, Demeter, Persephone, Aphrodite, Artemis, Athena and the Nymphs are corresponding female personifications of the power of Heaven. Strictly speaking, Murr's conception of the rich pantheon of the Greeks is a Monotheism, which, however, as far back as we can trace it, appears as a Dualism. Accordingly he believes that each Greek race-stock had its original pair of divini-

ties until the supremacy of one tribe brought with it the supremacy of one pair of divinities, to whom the others were subordinated. Had he, however, instead of starting from preconceived opinions, historically and critically examined his sources, he would hardly have been led to the hypothesis of an original monotheism.—W. H. ROSCHER in *Berl. Phil. Woch.*, 1893, p. 914.

G. F. UNGER. *Zeitrechnung der Griechen und Römer*. Handbuch der klassischen Alterthumswissenschaften, herausg. von I. v. Müller. Bd. I (S. 716–831). 2 Aufl. Beck, München.

The merit of this work consists in the independence with which the author has handled his material. This independence is also the source of the failings of the volume. Such a handbook should not represent the standpoint of a single investigator merely, at least when he deviates, as Unger does, from the results of modern chronological investigation. So thoroughly considered a theory as that of Bilfinger, that the Greek and Roman day began with the morning, should not be so lightly dismissed. He might also have given other tables of the Attic year, those of Mommsen and Boeckh, for example, as well as his own; and have added references to prove the truth of his own view.—WILHELM SOLTAN, in *Berl. Phil. Woch.*, 1893, p. 984.

SAM WIDE. *Lakonische Kulte*. 8vo, pp. viii, 417. Teubner, Leipzig, 1893.

The author, already favorably known by an excellent memoir on the cults of Troizên and Epidauros, *De Sacris Troezeniorum Hermionensium, Epidauriorum* (Upsala, 1888), a book which inspired Immerwahr to write his *Arkadische Kulte*, gives us in this volume the results of considerable research not only amongst inscriptions and authors, but also coins and figured monuments. M. Wide guards against premature generalizations and venturesome theories; he has not even dared to entertain the systematic distinction between the Dorian and "pre-Dorian" cults, but towards the end of his book he expresses the interesting opinion that the Dorian conquest had little influence on the Lakonian religions. We hope M. Wide will find imitators, just as he already has a precursor in Immerwahr. When we possess like statistics for all the countries of the Greek world, the knowledge of Greek mythology will rest on a sounder basis. The indexes of such volumes are in themselves of great value. It is to be hoped that his promised book on Boeotian cults will soon appear.—*Revue des Études Grecques*, April–June, 1893; *Berl. Phil. Woch.*, 1893, p. 987.

GASTON COUGNY. *L'Art Antique. 2^e Partie: La Grèce—Rome.* Choix de lectures sur l'histoire de l'art, l'esthétique et l'archéologie accompagnée de notes explicatives, historiques et bibliographiques. 8vo, pp. 361, 78 gravures. Firmin-Didot, Paris, 1893.

This is a history of art in Greece and Rome, extracted from the writings of twenty different authors, most of whom, like Beulé, Chipiez, Collignon, Diehl, Lenormant, Martha, Perrot, Reinach and Taine, are well known outside of France. This method necessarily results in *lacunae* which M. Cougny has attempted to supply in notes. Thus Mykenai, the Athenian poros sculptures, the Aigina marbles, are disposed of in brief foot-notes. Skopas receives no attention and Lysippos almost none. Having also too much regard for the renown of the writers, antiquated views are here maintained. The illustrations are small and some beneath criticism.—FRITZ BAUMGARTEN in *Berl. Phil. Woch.*, 1893, p. 989.

IWAN V. MÜLLER. *Handbuch der klass. Alterthumswissenschaft*, IV, 1 Abt. 2 Hälfte: *Die griechischen Privataltertümer*; ADOLF BAUER, *Die griechischen Kriegsaltertümer*. Zweite umgearbeitete und sehr vermehrte Auflage (mit Register). Large 8vo, pp. ix, 502. H. Beck, München, 1893.

The director of the new philological encyclopædia has condensed a fulness of material in comparatively small compass. A complete picture of ancient life is laid before us in these pages, which contain also many references to illustrations of monuments. The *Kriegsaltertümer* in this edition is much enlarged. The author's standpoint is essentially military, and he seems well versed in modern military literature. The military grounds of Graeco-Macedonian history are set forth in a masterly fashion. But he is less well versed in monumental evidence, and the faults of the book arise chiefly from this deficiency.—SITTL in *Berl. Phil. Woch.*, 1893, p. 1053.

GUSTAV GILBERT. *Handbuch der Griechischen Staatsalterthümer*. Erster Band. 2^e Auflage. 8°, pp. 518. Leipzig, Teubner, 1893.

This work of Gilbert, the first edition of which appeared in 1881, is undoubtedly the best arranged manual of Greek political antiquities that we possess. The present edition contains about 100 pages more than the preceding one, and the author has made use of the epigraphical discoveries of the last ten years, as well as recent works

by German philologists. Too much blind respect, perhaps, is paid to the lately recovered treatise by Aristotle on the Polity of the Athenians, especially as the author himself, in his preface, shows how, among Aristotle's sources, many were untrustworthy and served a party spirit.—*Revue des Études Grecques*, April–June, 1893.

ADRIEN JOIGNY. *Histoire des Ordres dans l'Architecture*. 8°, pp. 227. Paris, Dujardin, 1892.

The friends of the late lamented Adrien Joigny have done well to collect in one volume the articles which he published in the *Encyclopédie de l'Architecture et de la Construction*. Taken together they form, as it were, a history of the orders, principally in Greek art. Such an article as that on the *Capital* is a veritable monograph upon the subject, containing, along with an extended knowledge of the monuments, original views which show reflection and independence of thought. One cannot accept all the author's opinions, as, for instance, his explanation of the origin of the Ionic column, but the knowledge and talent with which his ideas are all expressed must certainly meet with general appreciation.—*Revue des Études Grecques*, April–June, 1893.

FELIX RAVAISSON. *La Vénus de Milo*. Extrait des mémoires de l'Académie des Inscriptions et Belles Lettres, tome xxxiv, 1 partie. 4to, pp. 112, 4 pl. Imprimerie Nationale, Paris, 1892.

This monograph contains a useful compilation of documents referring to the discovery and acquisition of the Venus of Milo. The myth that the statue, when first found, was standing upright, with both arms complete, and was injured in the quarrel over its shipment, is traced back to the French consular agent at Brest. A new document is published, in a letter from M. Senez, who took part in the expedition; also an original sketch by M. Voutier, taken immediately after the discovery of the Venus, but not, however, of much value, since in his drawing he arbitrarily made the base more extensive than in reality. M. Ravaisson's method is unscientific and his knowledge small. It is impossible to accept his restoration of the group of Venus and the Borghese Ares, called by him Theseus. This is a sample of his reasoning. The statue of the Borghese Ares in the Louvre is of Pentelico marble, therefore it represents a hero dear to Athens, namely, Theseus. As a sample of his archaeological judgment may be cited his mistaking a common Roman method of arranging the chiton as a sign of the workmanship of the age of Perikles.—A. FURTWÄNGLER, in *Berl. Phil. Woch.*, 1893, p. 1107.

J. OVERBECK. *Geschichte der Griechischen Plastik*. 4. Aufl. 1892. Leipzig, Hinrichs'sche Buchhandlung.

No period has been so brilliant and so full of important results as regards the investigation of the monuments of antiquity as the latter part of this century. The great increase in the material at hand must necessarily bring with it new opinions and judgments of newly discovered as well as of previously known monuments, and impose upon the archaeological science of the present time a double task: the duty of careful observation in face of the discoveries, and the obligation to systematize that which has been discovered. Though the time for the second half of this task may seem to some not yet arrived, it must be attempted, lest we be driven into a period of mere accumulation of notes. Overbeck's "*Geschichte der Plastik*" attempts to fulfill this obligation, and therein lies its importance. The present first half-volume, divided into two books, carries us to the beginning of the Periclean period, and contains sixty pages and twenty-three illustrations more than the corresponding part of the third edition. The new illustrations are excellent, and represent for the most part monuments discovered since the appearance of the third edition.

The "Mycenean" civilization is a foreign product that passed already complete from the East to Greece. That there was some local imitation is natural. The question as to the origin of that civilization is not yet answered. The roots of the art of metal-working, of which the cups from Vaphio are perhaps the most striking examples, might be sought in Syria. At any rate the Phoenicians were the most active force in the spread of this art, though an indirect influence of Egypt appears not improbable.

The first two chapters of the second book are rearranged. The first, after a brief review of the relations of poetry and art, discusses the chest of Kypselos, the Amycnean throne, and the reliefs of Athena Chalkioikos. The Amycnean throne is regarded as a work in thin plates of metal. The chest of Kypselos is newly dated, and the Kalon-inscription is used in dating Gitiadas. The second chapter treats connectedly the artists down to Endoios. The third chapter treats of the extant monuments of this period, closing with the metopes of Selinus. Overbeck's views concerning Ageladas and Onatas, Kritios and Nesiotes, contained in chapter IV, are already known from recent articles. The fifth chapter, treating of the extant monuments of Olympiads 60 to 79, has necessarily been much altered and enlarged with the addition of newly-discovered material, especially the works of early Attic art, which are fully discussed. The sixth chapter, on the contrary, treats of much the same material as in the third edition.

Overbeck's work offers a careful, finely drawn, and very prudently outlined picture of the history of ancient sculpture as it presents itself to us to-day.—ARTHUR SCHNEIDER in *Repertorium für Kunstwissenschaft*, 1893, p. 349. Cf. SITTLE in *Berl. Phil. Woch.*, 1893, p. 1137.

HUGO MAGNUS. *Die Darstellung des Auges in der antiken Plastik.* Mit 10 Figuren. 8vo, pp. 96. E. A. Seemann, Leipzig, 1892.

This book treats first of the anatomical character of the eye in its relation to plastic art, then, in separate sections, of its representation in ancient Greek sculpture. He follows the changes from the archaic period to the period of transition and the period of Pheidias, then to that of Skopas and Praxiteles and Lysippos and the Alexandrian period. In spite of many errors of detail, the general points in the development of the representation of the eye through the different periods is rightly given. The illustrations are unfortunately not well executed.—A. KALKMANN in *Berl. Phil. Woch.*, 1893, p. 662.

W. MALMBERG. *Die Metopen der altgriechischen Tempel.* Eine Untersuchung aus dem Gebiete der dekorativen Skulptur. Mit 4 Tafeln. 8vo, pp. xvi, 197. Mattiesen, Dorpat, 1892.

This work is in Russian, but the author gives a somewhat extended notice of his conclusions in the *Berl. Phil. Woch.* He here surveys the metopes of Greek temples in historical sequence, beginning with the metopes of the temple of Assos, which he assigns, in opposition to Clarke (*Papers of Arch. Inst. Amer.*, Vol. I, p. 100), to the VI century. He also differs from other writers in respect to the position and interpretation of many metopes. In conclusion, he finds that the Gigantomachy plays the largest roll among metopal subjects, next follow the Trojan contests with the Iliupersis, and the deeds of Herakles, whereas the Kentauremachy, better adapted for friezes, occurs only once in metopes.—MALMBERG in *Berl. Phil. Woch.*, pp. 781 and 820.

LA COLLECTION BARRACCO. Published by FR. BRUCKMANN, with text by GIOVANNI BARRACCO and W. HELBIG. Verlagsanstalt für Kunst und Wissenschaft. München, 1893.

This is an expensive work, produced in the style of Brunn's "Denkmäler" and Brunn-Arndt's "Porträts" and Bode's "Renaissance-Sculptur Toscanas," by the same enterprising publishers. The collection of Senator Don Giovanni Barracco is one which in scientific interest outweighs all the collections in the palazzi and villas of Rome. It is the result of many years of intelligent collection with a

scientific purpose in view. Barracco has admitted to his collection hardly any pieces but those which are of importance to the history of art and illustrate the specifically Greek workmanship from the Archaic to the Hellenistic period. The VI and V centuries are here represented by fine examples of sculpture, some of which are already known from casts and publications, such as the relief of a horseman on an Attic funerary stele, a marble head resembling those of Aigina, a replica of the head of Apollo at Kassel, and of the Marsyas by Myron, and the statue of an ephebe. This collection, which in recent times has had no parallel in private collections, except those of Saburoff and Jakobsen, has hitherto been difficult of access. The prospectus promises seventy plates, which certainly will be an important contribution to the history of art.—FRANZ STUDNICZKA in *Berl. Phil. Woch.*, 1893, p. 692.

THEODOR SCHREIBER. *Die hellenistischen Reliefbilder*. Mit unterstützung des kgl. Sächsischen Ministeriums des Kultus und der kgl. Sächsischen Gesellschaft der Wissenschaften. Fol. Wilhelm Engelmann, Leipzig.

Since 1889, when the first instalment of this work was published, there have appeared eight more parts, leaving only two or three more to make the work complete. In the first forty plates are gathered the large landscapes, the *Prachtreiefs*, as the author calls them. In a second division of the work come the smaller, finely executed *Kabinettstücke*. The text is still unpublished. The quality of the heliogravures is well sustained.—ALF. BRUECKNER in *Berl. Phil. Woch.*, 1893, p. 1178.

FRIEDRICH KOEPP. *Ueber das Bildniss Alexanders des Grossen*. Programm zum Winckelmannsfeste der archäologischen Gesellschaft zu Berlin. Mit 3 Tafeln und 20 Abbildungen im Text. 4to. pp. 33. G. Reimer, Berlin, 1893.

This is an attractive publication, both in its illustrations and in its style. The bust which is nearest to Lysippos in style is taken to be the Hermes Azara in the Louvre. The Rondanini Alexander in the Glyptothek, Munich, is taken to be a copy of Leochares' chryselephantine statue of Alexander in Olympia. More in the school of Skopas is the portrait from Alexandria, now in the British Museum. The head in the Capitol at Rome is thought to be a Helios, and the dying Alexander of the Uffizi a dying giant. Several heads now in England are here published for the first time.—FRITZ BAUMGARTEN in *Berl. Phil. Woch.*, 1893, p. 852.

F. R. DRESSLER. *Triton und die Tritonen in der Litteratur und Kunst der Griechen und Römer*. II Teil. Programm des kgl. Gymnasiums zu Würzen. pp. III, 47. 1893. Beide Teile auch zusammen in Commission bei Teubner in Leipzig unter dem Zusatztitel: I u. II Teil. Sonderabdrücke aus der Prog. etc. 1892-93.

Starting with representations of fish-tailed sea monsters in ancient Oriental art, the author treats first of similar monsters in early Greek monuments. In certain cases there may be some doubt whether they should be classed as Tritons or as similar sea divinities of lower rank (Halios, Geron, Nereus, Glaukos). Subsequent paragraphs enumerate and explain the monuments which represent Triton and the Tritons in association with other divinities, especially Poseidon, Amphitrite, Okeanos, Aphrodite, etc. Next are considered the enigmatic representations of Tritons and Nereids on sepulchral monuments, especially sarcophagi—possibly to be explained by a belief in the transformation of the dead into water divinities and sea animals, as in the legends of Ino-Leukothea, Halia, Kombe, Palaimon, Glaukos, Pontios, Enalos and the Tyrrhenian robbers. Finally the author makes useful observations on the decoration, dress and attributes of Tritons.—W. H. ROSCHER in *Berl. Phil. Woch.*, 1893, p. 885.

ÄGYPTISCHE URKUNDEN aus den Königlichen Museen zu Berlin, herausgegeben von der Generalverwaltung. Griechische Urkunden. Heft 1-4. Weidman, Berlin, 1892-93.

The administration of the Royal Museum of Berlin has decided to begin the publication of the papyri in their possession. The beginning is made with Greek documents. Prof. Erman represents the Egyptian section of the museum, and with him are associated Prof. Wilcken, Dr. Krebs and Dr. Viereck. It is a fortunate circumstance that these manuscripts are photo-lithographically reproduced rather than printed from type. The study of Greek law and legal terminology, as well as that of the administration of justice in the II and III century, will be substantially furthered through the publication of these documents.—GRADENWITZ in *Berl. Phil. Woch.*, 1893, p. 718.

KONRAD MILLER. *Die römischen Kastelle in Württemberg*. Mit zwei Kartenskizzen und 18 Situationsplänen. Stuttgart: Weise, 1892.

This is a pamphlet designed to popularize the work of the Reichs-limeskommission in anticipation of their fuller publication. It treats

of the eighteen Roman forts or fortified camps, which have already been determined with greater or less security and of which plans are here given.—GEORGE WOLFF in *Berl. Phil. Woch.*, 1893, p. 632.

MEDIÆVAL ARCHÆOLOGY.

MARCEL REYMOND and CHARLES GIRAUD. *La Chapelle Saint-Laurent, à Grenoble.* 8vo, Paris, Ernest Leroux, 1893.

The Chapelle Saint-Laurent, which serves as the crypt of a XII century church at Grenoble, is one of the most curious monuments in France, both from an artistic and archæological point of view. Attention was called to it in 1867 by Louis Gonse, in his *Notes d'un voyage dans le Midi de la France*, but it is now more fully published with phototype illustrations. It is in plan a Greek cross, exhibits a variety of vaults and an interesting system of engaged columns. It is of the type of the chapels of S. Sixtus and S. Soter, erected in Rome between the IV and VI centuries, and of S. Honorat, in the islands of Lérins, and of S. Croix, at Montmajour. It is well preserved and more complete than the chapels in Rome, and belongs to Merovingian times, about the VI century. The decoration, as interesting as that of the baptistery of Poitiers and that of the crypt of Jouarre, is remarkably well done, and the twenty capitals preserve the motifs of the Christian art of the Catacombs.—L. G. in *Chron. des Arts*, 1893, p. 248.

La Normandie Monumentale et Pittoresque. Héliogravures de P. Dujardin, d'après les photographies de E. Letellier; texte par une Société d'antiquaires et de littérateurs. Livraisons 25 à 32. Havre: Lemale et Cie.

These eight numbers finish the first volume of a work meriting the highest praise. The excellence of the illustrations, which are perfect works of art, combined with the admirable text, contributed by scholarly historians and archæologists, make the publication most valuable. Among the heliogravures especially worthy of praise, may be mentioned the *Ruins of the Château d'Arques*, the *Manor of Ango*, the *Château of Dieppe* and the *Church of the Bourg-Dun*. The names of MM. Simeon Luce and A. Darcel appear amongst those who contribute to the text, while an introduction by M. Armand Dayot, the well-known critic, accompanies this first volume, and M. Dayot has been charged with the same task for each of the four volumes that are still to appear.

HAUPT und WEYSSER. *Die Bau- und Kunstdenkmäler im Kreise Herzogthum Lauenburg*. Herausgegeben im Auftrage der Kreisstände, Ratzeburg.

The castle of Lauenburg was never a magnificent building and but little now remains of it. The great plans of the seventeenth century were never carried out. About 1600 the Stadtkirche was made, by Franz II, a splendid monument of the lower Saxon dukes. Originally Gothic, it received renaissance adornments. Most remarkable was the monument of the dukes, published from views in a manuscript of Dr. Schilherr. The work itself dates from 1599, but is almost entirely destroyed, having been "restored" in 1827.

The Nikolaikirche in Mölln in a transition style still little removed from late Romanesque, is well preserved. It was originally built in the twelfth century. Some parts of Gothic style were added. It had many altars, and a bell with late Gothic ornamentation, dated 1468. In Schwarzenbeck pure Gothic ornament is found of the year 1645. In Büchen the church is of transition style, with a choir of late Gothic. In spite of much injury to the church, the paintings of archers, etc., are in great part preserved, with biblical and legendary scenes. The church in Breitenfelde is not unlike that in Büchen, and has a window painted in the fourteenth century. The illustrations of the book are praiseworthy, but the work is to be used with caution.—DORIS SCHNITTGER-SCHLESWIG, *Repertorium für Kunstwissenschaft*, 1893, p. 354.

BEZOLD und RIEHL. *Die Kunstdenkmäler des Königreiches Bayern vom 2 bis zum Ende des 18 Jahrhunderts*. 1 Band. Die Kunstdenkmale des Regierungsbezirks Oberbayern. Bearbeitet von Gustav v. Bezold und Dr. Berthold Riehl; unter Mitwirkung anderer Gelehrter und Künstler. Mit einem Atlas von 150 bis 170 Lichtdruck- und Photogravure-Tafeln. Lieferung 1. Verlag von Jos. Albert, Munich, 1892.

The eight plates of this first number of the publication of monuments of art in Bavaria are distinguished for clearness and sharpness. The monuments here represented are the Obere Pfarrkirche and the Garnisonskirche at Ingolstadt. A somewhat more complete bibliography would be desirable than appears to be intended.—*Repertorium für Kunstwissenschaft*, 1893, p. 256.

W. BODE. *Die italienische Plastik* (Handbücher der königlichen Museen zu Berlin). Berlin, Spemann, 1891.

"The course of development of Italian sculpture is portrayed, and the great artists are brought before us in a masterly manner." The

complete mastery of the author over his subject, his familiarity with the works described, as well as with the literature concerning them, is evident. Little fault is to be found with the book, unless it be that the first chapter—early Christian sculpture—is too brief.—H. J. (ANITSCHK) in *Repertorium für Kunstwissenschaft*, 1893, p. 243.

ARTHUR PABST. *Kirchen-Möbel des Mittelalters und der Neuzeit*. Chorstühle, Kanzeln, Lettner und andere Gegenstände kirchlicher Einrichtung. Heinrich Keller, Frankfurt a. M., 1891.

The thirty plates reproduce articles of church furniture of Gothic style. The time represented extends from the XIII to the XVI century. The present time is represented by four articles in wood by Otto Mengelberg, of Cologne. Simplicity, utility and beauty determined the choice of examples. The excellent reproductions of important specimens of church furniture will be welcome.—*Repertorium für Kunstwissenschaft*, 1893, p. 255.

THE RENAISSANCE.

WILLY PASTOR. *Donatello. Eine evolutionistische Untersuchung auf kunsthistorischem Gebiet*. Giessen, 1892.

Pastor finds Donatello interesting on account of the irregularity of his development. His early works show constant advance. "In the Campanile statues Donatello takes another direction: instead of energy weakness, instead of beauty ugliness." In his later work he never quite succeeds in returning to his early excellence. "Unity of personality is what is lacking in Donatello." This view of Donatello's character and artistic progress is not altogether correct. The chief excellence of Pastor's book lies in its stylistic analyses. Pastor shows independence, an observing eye and considerable literary ability. The faults of the book are due to too brief occupation with problems of art history.—H. WÜLFFLIN in *Repertorium für Kunstw.*, 1893, p. 131.

GEORGES LAFENESTRE et EUGÈNE RICHTENBERGER. *La Peinture au Musée du Louvre*. 8vo, 400 p. Paris, May et Motteroz.

This volume, which is issued not under the auspices of the Louvre, as might have been expected, but through the enterprise of the publishers, supplies a long-felt want. The catalogue is enriched with a hundred reproductions of art-objects, generally well executed, and furnishes abundant information of the sort that the public will gladly accept.

PAUL LEFORT. *Le Peinture espagnole*. Bibliothèque de l'enseignement des Beaux Arts. Sm. 8°. Paris, Quantin, 1893.

M. Paul Lefort's frequent excursions to Spain and his special studies of Spanish masters, Goya, Murillo, Velasquez, Ribera, Zurbaran and others, have been an admirable preparation for this synthetic study, which begins with the illuminated manuscripts of the Middle Ages and ends with the Spanish paintings of the present day. It is clearly written, well proportioned and condensed, a true manual, useful alike to the learned and the ignorant. The illustrations are selected with care.—L. G. in *Chron. des Arts*, 1893, p. 256.

GUSTAV MÜLLER-GROTE. *Die Malereien des Huldigungssaales im Rathhause zu Goslar. Mit Illustrationen und Lichtdrucktafeln*. Berlin, G. Grote'sche Verlagsbuchhandlung, 1892.

Müller-Grote (as also Engelhard, Progr. d. Progymnasiums, Duderstadt, 1891) shows that Kratz was wrong in asserting that Wolgemuth was the artist of these paintings. Müller-Grote is, however, wrong in maintaining that Raphon is the artist, for the Brunswick altar, upon which he relies as his main argument, is not by Raphon. In the introduction he gives an excellent discussion of German (especially lower Saxon) town halls (Rathhäuser), and, as an excursus, an essay on representations of Sibyls in the 15th and 16th centuries.—H. J(ANITSCHKE) in *Repertorium für Kunstwissenschaft*, 1893, p. 251.

IVAN LERMOLIEFF. *Kunstkritische Studien über Italienische Malerei. Die Galerie zu Berlin. Nebst einem Lebensbilde Giovanni Morelli's, herausgegeben von Dr. Gustav Frizzoni*. Leipzig, 1893.

Giovanni Morelli died Feb. 28, 1891, and had prepared but a small part of this third and last volume of the new edition of his critical writings on art. The work of preparing the edition has been performed by Frizzoni in accordance with Morelli's views. The book contains new observations and expresses new views concerning many paintings in the gallery at Berlin and elsewhere, and new discussions of greater or less extent relating to Ghirlandaio, Fra Bartolommeo, Leonardo, Zoppo, Sebastiano del Piombo, Verrocchio, the Milanese school. This volume treats with most detail the early work of Raphael. The list of works of Timoteo Viti is considerably lengthened.—W. v. SEIDLITZ in *Repertorium für Kunstw.*, 1893, p. 244.

KARL WOERMANN. *Katalog der Königl. Gemäldegalerie zu Dresden.*
Grosse Ausgabe. Zweite, vermehrte und verbesserte Auflage.
Dresden, 1892.

Woermann had the most difficult task to accomplish in preparing the first edition of this catalogue, which appeared in 1887. The names attached to the pictures were to be investigated, and sometimes changed, and some pictures which had long been ranked among the pearls of the collection had to be restored to their proper position, as, for instance, the copies of Holbein's Madonna and Correggio's Magdalen. This demanded genuine courage, a quality for the display of which the second edition also offers opportunity, for not only the Christ bearing the cross bought under the previous administration as a work of Sebastiano del Piombo, but also the Madonna with saints bought as a Lotto by Woermann himself in the first part of his directorship, had to be given up. On the other hand, several hitherto neglected pictures are now newly assigned to distinguished masters, one to Lotto, two to Vrooms, one or two to Rembrandt.

New names, either of artists or of subjects, are attached to many paintings. The following are marked as new acquisitions: Reynolds, male portrait 798 B; A. v. Croos, river landscape, 1338 D; style of Mantegna, Pietà, 2189 A; Netherlander about 1560, Christ blessing little children, 2189 B; J. A. Duck, gay company, 2189 C; Eeckhout, Jacob's dream, 2189 D.

In passing the entire gallery in review, many remarks suggest themselves to the reviewer, some in confirmation of Woermann's opinions, some in disagreement with them. Such a work as this catalogue adds undeniably to the value of the gallery.—W. v. SEIDLITZ in *Repertorium für Kunstwissenschaft*, 1893, p. 369.

CORN. HOFSTEEDE DE GROOT. *Quellenstudien zur holländischen Kunstgeschichte. Arnold Houbraken und seine "Groote Schonburgh."* Haag. Martinus Nijhoff, 1893.

Whoever wishes to use Houbraken will hereafter find Hofstee de Groot indispensable. The author gives a short biography and characterization of Houbraken, a list of his works (to which he adds a considerable number), information concerning the appearance of the "Groote Schonburgh" and its editions, an investigation of the "sources" of Houbraken, both literary and others, a characterization of Houbraken as an historian, and in the second part of his work a detailed examination and proof of the literary sources. The value of the book is increased by excellent indexes.—W. BODE in *Repertorium für Kunstwissenschaft*, 1893, p. 357.

DANIEL BURCKHARDT. *Dürer's Aufenthalt in Basel, 1492-1494. Mit 15 Text-Illustrationen und 50 Tafeln in Lichtdruck.* Munich and Leipzig, G. Hirth, 1892.

The author publishes as works of Dürer a number of drawings on uncarved blocks of wood in the cabinet of engravings in the museum at Basle. The drawings were originally intended as illustrations for an edition of Terence. Burckhardt thinks Dürer spent the years 1492-1494 in Basle. In an edition of the letters of St. Jerome, that appeared in Basle in 1492, are prints representing St. Jerome from a block in the museum at Basle, which bears the full name of Dürer. This is evidently a work of Dürer, who was in Basle in 1492. From these woodcuts, Burckhardt concludes that Dürer drew the illustrations to Terence, and that from these a number of woodcuts which appeared in Basle about the same time are by Dürer. He mentions the forty-five illustrations to the "Buch des Ritters von Thurn" (1493), a series of illustrations from the "Narrenschiff" of Seb. Brant (1492), a small woodcut with St. Sebastian in "Bonaventura, von den vier Uebungen des Gemüths," and Dürer's title-page to the edition of the "Opera Roswithae" (1501, but planned in 1492). The stylistic agreement of these works is, in Burckhardt's eyes, more convincing than all the evidence for Dürer's first journey to Italy; and, as he can find no date for such a journey except 1492-1494, he tries to weaken the evidence for it. He agrees with R. Vischer, that Dürer was not permanently influenced by Pleydenwurf or Wolgemuth, but was even in Nuremberg under Schöngauer's influence. Burckhardt's arguments do not destroy the evidence for Dürer's first journey to Italy, which may well have taken place in 1495, and Dürer's personal share in the works in question is much less than is assumed by Burckhardt; it is nevertheless true that "Basle owes its first period of eminence in wood engraving not merely in general to the neighborhood of Schöngauer, but especially to the sojourn of Dürer.—ALFR. SCHMID in *Repertorium für Kunstwissenschaft*, 1893, p. 136.

GABRIEL VON TEREY. *Albrecht Dürer's venetianischer Aufenthalt 1494-1495.* Strassburg, J. H. Ed. Heitz, 1892.

The author shows by Dürer's letters of 1506 that he cannot have passed four months in the Tyrol in that year. He brings forward all the evidence—studies from Italian originals, similarity in Dürer's works to those of Italian masters, etc.—tending to prove that Dürer was in Venice in 1494-1495. "Decisive for a sojourn in Venice in the winter of 1494-1495 is not . . . this or that advance, this or that analogy in itself alone, but the fact that, just at the time when . . . one

should expect Italian influence, it appears in a whole series of dated works."—ALF. SCHMID, in *Repertorium für Kunstw.*, 1893, p. 144.

ANTON SPRINGER. *Albrecht Dürer. Mit Tafeln, und Illustrationen im Text.* Berlin, G. Grote, 1892.

This book appears to have grown from Springer's lectures on Dürer. It is free from all learned apparatus and all polemic. The author clings to his opinion that in his earliest authentic copper engraving Dürer gave to Adam his own features. He finds no trace of a powerful influence of Schöngauer upon Dürer. Dürer's first journey to Italy is spoken of as an established fact. The year 1504 marks the height of Dürer's development. Springer tries to prove that the mathematical element and the dreamy quality peculiar to Dürer were not opposed, but intertwined. His theoretical studies and scientific views are carefully treated. "Never yet has a deeper insight into Dürer's artist-soul been offered in less space than in Springer's book." "Springer distinguishes a humanistic, an Erasmanian, and a Melancthonian period in the course of Dürer's development." In his critical appendices the author intended to open a view of Dürer's mode of work, but his death intervened when only the introduction to the appendices was finished. Now, without the appendices, the work is most useful to those who are not specialists, though the specialist also will be thankful for it. "As the last work of Anton Springer his Dürer will always be held in high honor."—F. F. L. in *Repertorium für Kunstwissenschaft*, 1893, p. 132.

W. J. LOFTIE. *Inigo Jones and Wren; or, The Rise and Decline of Modern Architecture in England.* Macmillan & Co., 1893.

This is the somewhat extensive title of a work in which W. J. Loftie argues in favor of a revival of what he calls the Palladian style. This style, originated by Andrea Palladio and practised by him in Italy in the sixteenth century, had as its distinctive quality a dependence on proportion and not on ornament for the attainment of beauty. It was introduced into England by Inigo Jones, Christopher Wren, and others who adopted Palladio's plans, and marked out felicitous modifications of his forms and details. Palladian architecture is therefore a more inclusive term than "Queen Anne," and Mr. Loftie, after a chapter on the decay of Gothic, shows how it came in as a natural development after Elizabethan architecture. He traces the beginnings of Palladian, discusses in successive chapters the chief works of Jones and Wren, has a chapter on Wren's churches, and in conclusion considers the work of the successors of Wren, in whose hands the style has become debased till we have arrived at what Mr. Loftie calls "the

reign of stucco;" and what ambitious young architects speak of as "the New Gothic."

Mr. Loftie has studiously avoided technical terms as far as possible, and his argument will appeal to all who desire a sound comprehension of the true principles of architectural art. The book is handsomely and generously illustrated with fifty full-page plates, showing examples of some of the most beautiful and characteristic architecture in England. Some of these are from rare prints and other remote sources, and others are from photographs. They afford excellent means for comparative study, and amply vindicate Mr. Loftie's argument.—*The Beacon*.

PREHISTORIC ARCHÆOLOGY.

HENRY BALFOUR. *The Evolution of Decorative Art*. An essay upon its origin and development as illustrated by the art of modern races of mankind. 12mo. pp. xv, 131. Macmillan & Co., New York, 1893.

This little volume, by the Curator of the Ethnographical Department of the University Museum, Oxford, is an attempt to show the possible origin of prehistoric art in general by means of objects taken from modern uncivilized peoples, and showing the origin and development of decorative motives. The author's range of observation is not a very wide one, as he has confined himself apparently to the Pitt Rivers collection in Oxford, supplemented by a review of English and American literature. This field of observation has nevertheless enabled him to produce a very interesting series of illustrative forms, since the Pitt Rivers collection was made with this object in view. His point of view, is that art is primarily naturalistic and realistic, becoming conventional by successive stages. In the first stage, natural or accidental peculiarities are appreciated as ornamental effects and are in some artificial manner rendered more emphatic. In the second stage, natural effects are imitated or copied, with more or less fidelity to nature. In the third stage, we meet with a gradual metamorphosis of design through variation, which is often unconscious and unintentional, and sometimes intentional.

The illustrations which Mr. Balfour brings forward prove the value of applying the general ideas of evolution to the sphere of decorative design. Many forms which would otherwise remain obscure are rendered intelligible in the light of their origin and growth. Such little volumes, clearly written and from an inspiring standpoint, are certainly a contribution to the subject, and to be welcomed by all interested in the development of the history of art.

A. M.

ARCHÆOLOGICAL NEWS.

SUMMARY OF RECENT DISCOVERIES AND INVESTIGATIONS.

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AFRICA.

EGYPT.

CAIRO.—GHIZEH MUSEUM.—PAPYRUS WITH GILDED ILLUMINATION.—One of the papyri of the Priests of Ammon lately unrolled by Dr. Brugsch, the Conservator of the Ghizeh Museum, was found to bear gold decoration in the illuminations, the first instance of the application of gilding to this purpose within his experience; neither does he recall an example among the papyri in Europe. It is, of course, well known that the art of gilding was practised by the ancient Egyptians in ornamenting objects in wood, and it is only natural to suppose that the scribes would have adopted the same process to heighten the splendid coloration of the papyrus illuminations. The papyrus in the present instance is that found with the mummy of a priest of the twenty-first dynasty named Usaratmis. The process adopted was evidently first to apply a gum or varnish, and then to lay on the gold in a thin leaf.

The last important acquisition of the museum happens to be an incense burner in wood, plated with thick gold. It is one of those objects seen depicted in the hands of kings in adoration before a god. At one end of a *bâton* is a hand holding a cup, the other end being a hawk's head; in the centre is a small vessel to contain the incense, which was thrown into the cup that would have held some burning coals. The object is very striking as a work of art. It was found at Dimeh, and is assigned by Dr. Brugsch to the Ptolemaic era. An incense burner of somewhat similar form, in bronze, is at the Ghizeh Museum, and another in the Vatican Museum, also in bronze, if we remember rightly.—*Athen.* Dec. 20.

The Abbot collection possesses (Catal. No. 765), a magnificent funeral papyrus, 22 ft. long, from Sakkarah, which is in perfect preservation and is beautifully illuminated with the history of the life of the deceased. In the first scene is represented the Sacred Bull, *beautifully gilded*, and the deceased supported by two or more gods. The papyrus of the Ghizeh Museum is, therefore, not the only one with gold ornamentation.—A. L. F. JR.

ASIA.

ASIA MINOR.

AUSTRIAN MISSION TO KARIA.—The mission of the Academy of Sciences of Vienna, under Drs. Kubichek and Reichel, to Karia, in Asia Minor, and the neighborhood, has been successful. About three hundred inscriptions, mostly of the Roman epoch, were found. Aphrodisias, or Gheire, largely contributed to this collection.—*Athenæum*, Sept. 23.

EXPEDITION OF M. CHANTRE.—M. Chantre, director of the museum at Lyons, and Mlle. Chantre, both well known for four previous missions in Kurdistan and the Caucasus, have arrived at Constantinople for Asia Minor, whither they are proceeding for archæological and anthropological research.—*Athen.*, May 20.

MODERN AND ANCIENT ROADS IN EASTERN ASIA MINOR, by D. G. Hogarth and J. A. R. Munro, published as one of the "Supplementary Papers" of the Royal Geographical Society, forms a valuable addition to Prof. Ramsay's 'Historical Geography of Asia Minor.' The journeys described were undertaken in 1890 and 1891, mainly in the interest of archæological research, although a fair share of attention has been devoted to the elucidation of the geography of the country. The interest centres in the description of a portion of the ancient military road which connected Cesarea with Melitene on the Euphrates. Sixty-five Roman miles of this road were for the first time traced by visible remains. The milestones show it to have been built during the reigns of ten emperors, from Septimius Severus to Diocletian.—*Athen.*, July 29.

INSCRIPTIONS.—Inscriptions from Thasos, ten in number, followed by one from Samos, are published by Otto Kern, *Mith. Athen.*, 1893, p. 257. All are fragmentary.

Inscriptions from Miletus, eight in number, are published by Otto Kern, *Mith. Athen.*, 1893, 267. They are, for the most part, of little interest. The most important seems to be one in honour of Jason son of Demetrius.

Two inscriptions from Nysa are published by F. Hiller v. Gaertingen in the *Mith. Athen.*, 1893, p. 333. Both are fragmentary and of late date.

In the *Mith. Athen.*, 1893, p. 206, G. Weber published five late *Inscriptions from southern Phrygia*.

BITHYNIA.—A funeral monument from Bithynia is published by B. Graef in the *Mith. Arch. Inst. Athen.*, XVIII p. 27 sq. (cut). It resembles the monument discussed *Mith.* XVII. p. 80 sq. The inscriptions upon the monument itself and the stones near it show it to belong to a family burial place.

GJÖLBASCHI.—THE FRIEZE.—F. Noack writes of the Frieze of Gjöl-Baschi in the *Mith. Athen.*, 1893, p. 305. While agreeing with Bendorff in his interpretation of the other reliefs of Gjöl-Baschi, Noack denies that the reliefs of the western wall refer to the Aethiopis and the taking of Troy. The battle and the siege of the city there represented, Noack thinks may refer to some events in Lycian history. He supports his position by arguments drawn from accurate examination of the frieze and from comparison with the paintings in the Stoa Poikile.

ISAURIA.—Together with the Megalopolis Report there has also been issued to members of the Hellenic Society an illustrated paper on 'Ecclesiastical Sites in Isauria,' by Rev. A. C. Headlam, dealing mainly with a most important Byzantine church discovered by Prof. Ramsay during his last journey in Asia Minor in the company of Messrs. Hogarth and Headlam.

LAMPSAKOS.—The Subdirector of the Imperial Museum at Constantinople, Khalil Bey, has suspended for the present the excavations at Lampsakos, and has brought some of the objects to the Museum. Three sarcophagi were found, which are said to have contained some antique gold jewellery.—*Athen.* June 24.

Eighty cases of antiquities, the produce of the excavations of Khalil Bey in the province of Aidin, have arrived at the Imperial Museum of Constantinople.—*Athen.* May 20.

Khalil Bey, Subdirector of the Constantinople Museum, has gone to Lampsakos to continue the excavations.—*Athen.* July 29.

TROY.—LATEST EXCAVATIONS BY DR. DÖRPFELD.—The excavations at Troy-Hissarlik, which were interrupted in August, 1890, were taken up again May 1, 1893, and brought to a close on July 11. They were directed by Prof. Dörpfeld, assisted by an archaeologist, M. A. Brückner, an architect, W. Wilberg, and by Weigel, a specialist in prehistoric studies. The Turkish Government was represented by Prof. Mystakidis. The cost was defrayed by Mme. Schliemann.

In the *Mith. Arch. Inst. Athen.*, 1893, p. 199 sq., W. Dörpfeld publishes a preliminary report, under the title *The New Excavations in Troy*. The seven strata or settlements described by Schliemann in

"Ilios" and "Troja" are now increased by two. The sixth stratum is the most important, being the grandest citadel that existed on the hill of Hissarlik before Roman times. Remains of seven large buildings were here found having in part the plans of Greek temples or of the megara of Tiryns and Mykenai, but excelling these in proportions and accuracy of building. The most remarkable lies nearly in the middle of the citadel, and consists of a hall 9 m. wide and 11½ m. long, with a portico. The hall was once divided by wooden columns into three naves. The building resembles the temple at Neandrea excavated by R. Koldewey. At least as many more buildings remain to be excavated. The buildings of the sixth stratum are surrounded by a magnificent wall 5 m. thick, built of great stones. A tower 18 m. wide, with stairs within, still stands to the height of 8 m. at the northeast corner. The size of this Pergamos is about the same as that of the citadel at Tiryns. Its height above the plain was about 28 m. The chief reason for the failure to recognize this stratum before is probably that the Romans levelled the top of the hill when the temple of Athena Ilia was built. "Mykenæan" vases, *etc.*, show that this sixth stratum was contemporaneous with Tiryns and Mykenai. Similar finds on lower ground speak for the existence of a city about the citadel. An urn of the same date shows traces of burning the dead. The nine strata are divided into three groups, as follows:

I. Præ-Mykenæan or prehistoric strata:

- a) Earliest settlement—1st stratum.
- b) Stately citadel, with dwelling-house, wall, towers and gates—2nd stratum.
- c) Three inconsiderable settlements, built successively over the burnt ruins of the 2nd stratum—3d-5th strata.

II. The Mykenæan stratum or Homeric Pergamos—6th stratum.

III. The post-Mykenæan strata:

- a) Archaic dwelling-house—7th stratum.
- b) Greek-Hellenistic dwelling-house—8th stratum.
- c) Stately Roman buildings—9th stratum.

A more detailed account is promised.

The following is taken mainly from letters written by Dörpfeld to Charles Normand (*L'ami des Monuments*, No. 39, p. 267). "I am now firmly convinced that the sixth city is that sung by Homer. This conviction is based on the following facts: 1) We have found, in the sixth layer, by the side of a grey local pottery called Lydian by Schliemann, a large number of fragments of vases of the Mycenæan period, and even some entire vases of this period, amongst them a vase having the form of the Homeric double-mouthed beaker. Hence it is proved that

this stratum belongs to the Mycenaean period, *i. e.*, between about 1500 and 1000 B. C. 2) In this stratum we found several large buildings, a, b, c, d, e, f, whose plan corresponds with those of Tiryns and Mycenai, still surrounded by a wall. This acropolis of the sixth stratum is more than twice the size of that of the second stratum. Next year Dr. Dörpfeld expects to excavate the entire wall circuit of this stratum and the other buildings that it contains.

The acropolis of the second stratum must therefore be regarded as of an earlier period than was supposed. It probably dates from between 2500 and 2000 B. C., and the finds here made—the vases as well as the gold objects—belong to a period anterior to the Mycenaean period—an opinion which had already been expressed by such eminent archaeologists as Perrot and Newton.

Above the greater part of the second stratum the buildings of the sixth stratum had been destroyed during the Roman period for the erection of the temple of Athena, and for this reason Schliemann found none of them. But outside the perimeter of the second stratum the buildings of the Mycenaean Civilization are still preserved, and it is here that Dr. Dörpfeld expects to find others next season.

KYPROS.

IDLION.—A. N. Skias in an article entitled *Kypriaka* in the *Ἐφημερίς Ἀρχαιολογική*, 1893, p. 61 sq., gives notes and suggestions to the inscription on the large bronze plaque from Idalion, and the inscription Meister, *Die griech. Dial.* II, p. 161, Hoffmann, *Die griech. Dial.* I, p. 82, No. 160.

KRETE.

NUMISMATIC SYMBOLS OF ANCIENT KRETE are discussed by J. N. Svoronos in the *Ἐφημερίς Ἀρχαιολογική*, 1893, p. 147 sq. While the types of the coins have been carefully studied, the symbols have been neglected. Svoronos takes up the certain symbols, specifying those belonging to eight classes:—1) On the obverse, characterizing the head of the god; 2) on the reverse, in direct relation to the type; 3) designating the place where the scene is laid; 4) characterizing the inhabitants of the city where the coin is struck; 5) coats of arms of the cities; 6) symbols found as types upon smaller contemporary coins of the same series; 7) symbols found as types upon earlier coins of the same city; 8) symbols with historical significance. To these some unclassified symbols are added.

INFANCY OF ZEUS.—J. N. Svoronos in the *Ἐφημερίς Ἀρχαιολογική*, 1893, p. 1 sq. discusses types of coins referring to the rearing of Zeus

in Krete (pl. 1; one cut). A fourth century didrachma of Kydoma represents a babe suckled by a bitch. Other similar Cretan coin-types are published, and traces are collected of a legend that the infant Zeus was suckled by a bitch. The constellation Ursa Minor is connected with this animal. A fifth century didrachma of Phaistos represents a babe suckled by a cow. This is also explained as a representation of the infant Zeus, and the constellation Ursa Major is connected with this cow, a connection which explains the name Ἑλική, Βούτης, and Septemtriones. Twenty-five coins are published.

INSCRIPTIONS.—Prof. Cicchotti has just published a judicial work on the antiquities of Krete, based on the ancient inscriptions of the island. Prof. Comparetti has, meanwhile, finished his study on the legal inscription of Gortyna, of which he will issue shortly a definitive reading; while Prof. Halbherr will follow with the complete collection of all the Greek and Latin inscriptions of Krete down to Byzantine times. Two new inscriptions of Roman date have just been found at Gortyna, one relating to games, the first of this kind hitherto found in Krete. They will be published shortly by Dr. Ricci in the *Monumenti de' Lincei—Athen.*, May 6.

In the *Mith. Athen.*, 1893, p. 272, E. Maass discusses the Rheapigram first published by Halbherr, *Museo italiano*, III, p. 736, and discussed by Blass, *Fleckeisen's Jahrbücher*, 1891, p. 1. Maass differs in important particulars from Blass.

Two rock inscriptions of Amorgos, *Museo italiano*, I, p. 227 (Röhl, I. G. A., No. 390), and *Museo italiano*, I, p. 225 (Röhl, No. 391), are republished and discussed by F. Duemmler in the *Mith. Athen.*, XVIII, p. 32.

CRETAN INSCRIPTIONS IN VENICE.—Prof. Scrinzi, of Venice, has succeeded in discovering the originals of the two Cretan inscriptions published in Boeckh's Greek Corpus, at Nos. 2557 and 2562, containing the letter of the city of Allaria to the Parians and the treaty of Hierapytna, which were both long considered as hopelessly lost. It appears that they once belonged to the museum of Treviso, and Prof. Scrinzi, aided by a notice in the "Antiquitates Cretenses" of Torres, found them in a dark and out-of-the-way corner of the collection of the Conti Giustinian-Recanati "alle Zattere." The fortunate discoverer is now engaged in looking for the inscription containing the treaty between Latos and Olus, which Boeckh reproduced from ancient but very imperfect MSS., which had, however, been lost sight of in Torres' time. He will be joined by Dr. Ricci, of the Archæological School of Rome, who will seek out and examine all the archæological and epigraphical materials relating to Krete which can be found at Venice, as well as the MS. relations on the antiquities of Candia known to exist

in the public and private libraries of the former rulers of the island. —*Athenæum*, July 1.

GORTYNA.—At Gortyna, in Krete, two noble sarcophagi have been discovered lately, and a marble head larger than life, and of fine execution. All appear to be post-Hellenic.—*Athen.*, Jan. 14.

HIERAPYTNA.—EGYPTANIZING RELIEF.—Near the ancient city of Hierapytna, a large slab of marble has been accidentally found with figures in relief of an Egyptian character. The figures, which are in two groups on the face of the slab and on a narrow band underneath, represent human bodies with heads of men, dogs, and eagles. The head-gear is in some cases the Egyptian *pschent*. In one place may be seen the figure of a lion, so that we may conclude the representations refer to Anubis, and to Isis and Osiris, though the lion may refer to the Asiatic myth of Kybele or of the mother of the gods, whose worship, it is known, existed in some Cretan cities. It is to be hoped that this remarkable stone may be secured for some local museum, either at Candia or Hierapetros.—*Athen.*, July 1.

EUROPE.

GREECE.

THE ATHENA OF KEPHISODOTOS.—In the *Jahrbuch k. d. Arch. Inst.* (1893, p. 173 sq.) P. Wolters writes of the Athena of Kephisodotos, (Pl. 3; 6 cuts). Wieseler's objections to Brunn's supposition that the statue in Munich formerly called Leucothea is a copy of the Eirene by Kephisodotos are met and put aside. The bust of Athena from Herculaneum (Naples No. 6322, Comparetti and De Petra, *La villa Ercolane*, pl. 20, 1, 2, p. 273 sq.) is claimed as the Athena Soteira of Kephisodotos. Replicas are in Naples and the Capitoline museum in Rome. The dates of the Eirene and the Athena are nearly identical, not far from 374 B. C. The "Sardanapalus" in the Vatican (Friederichs-Wolters, 1284; Helbig, *Führer*, 326) with its replicas, is also ascribed to Kephisodotos.

ATTALOS.—THE ARTIST OF HIS BATTLE-GROUPS. — In the *Jahrbuch k. d. Arch. Inst.* (1893, 8 cuts, p. 119 sq.), Ad. Michaelis writes of "the artist of the Battle-groups of Attalos." He first collects the early record of the well known marble figures. They were found in the cellar of a nunnery, the site of which is unknown. A letter of 1514 or 1515, and a sketch in the Basle sketch-book (about 1540) show that the Naples amazon had a child on or at her breast. This is shown to be compatible with the Asiatic idea of an amazon. The artist Epigonos is known from many inscriptions to have been one of the most important artists in the pay of Attalos I. His name is to be read instead

of the unknown Isigonus in Plin. H. N. 34, 84. His important position at Pergamon, with Pliny's words (i. c. and 34, 88) make it probable that he was the artist of the gift of Attalos to Athens as well as of the dying Galatian in the capitol and the group in the Museo Buoncompagni.

DEMETER-WORSHIP IN GREECE.—M. Foucart in a paper on Eleusis before the Academy of Inscriptions in Paris favors the ancient Greek tradition that the Demeter-worship was introduced from Egypt into Greece. The several disbeliefs amongst later scholars in such an origin rests upon the erroneous supposition that Egypt had no navy before the 20th dynasty. To-day, however, hieroglyphics have shown that Egypt held sway over the islands of the Ægean in the 18th dynasty, and archaeological discoveries in both countries confirm the fact that Egyptians had colonized in Greece long before the Trojan War.—*Eos*, Oct. 31.

FACSIMILES OF POLYCHROMATIC ATTIC VASES.—Mr. A. S. Murray, keeper of the Greek Antiquities at the British Museum, is passing through the press a work which is likely to exercise a most profound impression on the artistic culture of the country. It will consist of facsimile representations of many of the principal subjects from the polychrome Athenian vases in his department. The reproductions by engraving of this class of subjects in many valuable archaeological works, though sufficient for reference, leave much to be desired from the point of view of accuracy and artistic execution. The forthcoming work will fulfil both these requirements. It is intended to be a handbook for students, and it is expected that the price will not exceed two or three shillings; and will doubtless have a wide circulation. The introduction will be written by Mr. Murray, and the descriptions by Mr. Cecil Smith.—*Athen*. June 3.

GREEK INSCRIPTIONS.—M. Haussoullier has given in the *Revue de Philologie* (1893, No. 1.) a review of Greek epigraphy for the year 1892 under the title *Bulletin Épigraphique*. The bulk of it is taken up with detailed reviews of two works: Larfeld's *Griechische Epigraphik*, and the first volume of the Berlin *Corpus inscriptionum Græcarum Græciæ Septentrionalis*. The first part of the latter, which has just appeared is by Dittenberger and is entitled *Inscriptiones græcæ Megarensis, Oropiæ, Boeotiæ*. A glance is taken at the *Recueil des inscriptions juridiques grecques*, fasc II, published by Dareste, Haussoullier and Th. Reinach, and at a few special memoirs.

GREEK MYTHS IN RENAISSANCE ART.—Carl Meyer in an article entitled "Greek Myths in the Works of Art of the Fifteenth century" in the *Repertorium für Kunstwissenschaft*, (1893, p. 261, sq.) describes

and discusses German wood-cuts (and a few copper engravings) with mythical representations. The earliest cuts treated are a series of representations of the planets, the original of which appears to have belonged to the school of the Van Eyck brothers. The calendar of Johannes de Gamundia, printed in 1468, seems to be nearest to the original. The latest cuts discussed are illustrations to Murner's translation of the Aeneid and Hans Schüffelein's illustrations to the German translation of Boccaccio's "de præclaris mulieribus," both dated 1545. Special attention is paid to Dürer's engravings of mythological subjects with reference to his relatively advanced position; for although his gods and heroes have many characteristics of the Germans of the fifteenth century, his work shows some signs of the spirit of the renaissance. The younger Hans Holbein is still more advanced in his feeling for the classics. In general, poets and artists of the fifteenth century had little knowledge of classical forms, and imagined the mythical personages in the guise of the middle ages.

HADRIAN AND THE OLYMPIEION.—In the *Ἀρχαιολογικὸν Δελτίον* (1892, p. 113, sq.) P. Cavvadias discusses the visits of Hadrian to Greece and the consecration of the Olympieion. He publishes two Epidaurian inscriptions (*Fouilles d'Épidaure*, 226 and 35) in honour of Hadrian. The first shows that Hadrian was at Epidaurus A. D. 124, the second that the consecration of the Olympieion at Epidaurus and the foundation of the Panhellenion took place A. D. 131. Panhellenion is the festival at Athens founded by Hadrian. The Olympieion at Epidaurus was hitherto unknown. Its consecration was simultaneous with that of the great Athenian temple. Hadrian is known to have visited Greece A. D. 129, and unless the Olympia was consecrated and the Panhellenion founded in his absence, he visited Greece a third time A. D. 131.

HERAKLES' HELMET.—In the *archäologischer Anzeiger*, 1893, 4 p. 199, A. Körti brings forward arguments and examples to show that Herakles with a helmet formed of the skin of a lion's head cut off from the rest of the skin is not unknown in archaic Greek art. A. Furtwängler, *ibid.*, combats Körti's arguments and denies the force of his examples.

THE BRINGING OF KERBEROS FROM HADES.—In the *Jahrbuch k. d. Arch. Inst.* (1893, p. 157 sq.) P. Hartwig treats of The Bringing of Kerberos from Hades on Red-figured Vases (pl. II, 1; 4 cuts). The list of vases given by J. Schneider, *Die zwölf Kämpfe des Herakles in der ältesten griechischen Kunst*, Leipsic, 1888, is corrected. Besides two amphoræ, there are four dishes (schalen) with red figures representing this scene. All of these belong to the early period of red-figured

paintings—the school of Epiktetos. After this period, this scene is hardly represented at all until it appears again in later representations of the lower world.

MILCHÖFER ON ATTIC LOCAL CONSTITUTION.—A. Milchöfer treats of the Attic Local Constitution in the *Mith. Athen*, 1893 p. 277. The article is in form a reply and supplement to R. Löper (*Mith.* 1892, p. 319). Milchöfer lays stress upon his general agreement with Löper, the chief disagreements being in the site of Probalinthos, which Löper separates from Marathon by putting it on the other side of Pentelikon, and in the treatment of the trittyes and demes of Leontis. But Milchöfer goes once more over all the ground, treating each tribe, separately, and showing wherein he agrees or disagrees with Löper. In the main he retains the opinions he expressed in his *Untersuchungen über die Demeordnung des Kleisthenes* in the appendix to the *Abhandlungen der preussischen Akademie der Wissenschaften*, 1892.

MYCENÆAN INSCRIPTIONS.—We hear from Athens that Dr. Tsoundas has discovered on some fragments of vases of the age of Mykenai traces of inscriptions, which if Greek, will be the most ancient known examples of Greek writing. Traces of writing were observed some years ago by Prof. Sayce on pottery disinterred by Schliemann in the Troad; but the characters seem to have belonged to the Cypriote syllabic system, or to some such system at that time predominant in Asia Minor. The Mycenæan pottery being as old at least as the eleventh century B. C., the character of the signs now discovered by Dr. Tsoundas is anxiously awaited, as they will throw light on early writing in Greece and on the origin of the so-called Mycenæan civilization.—*Athen.*, Jan. 28.

The letters discovered by Signor Tsoundas on the Mycenæan vases found in the excavations of a necropolis in Argolis, of which mention has been already made in the *Athênæum*, are not isolated signs, as those of the vase of Signor Staïs, but are composed of groups of four or five signs combined, inscribed on the handles. Though in part illegible, several of them present the known syllabic characters of Cypriote writing.—*Athen.*, March 18.

POLYGNOTOS' DELPHIC PAINTINGS.—In the *Jahrbuch k. d. Arch. Inst.* (1893, p. 187 sq.) R. Schöne writes of Polygnotos' *Delphic Paintings*, with special reference to C. Robert's treatment of the *Nekyia* (Winckelmann's progr., Halle, 1892). Schöne finds that Polygnotos did not paint directly upon marble, and that his coloring was not like that of contemporaneous vases with slip of pipe-clay. Whether his figures were lighter or darker than the background is not certain. His four pigments were black, white, red, and yellow, but the black with

yellow would give a green, and with white a bluish color. The figures in these pictures were arranged on different planes, but not as stripes one above another, nor was the scene conceived as a hillside. Modern reconstruction of Polygnotos' pictures of the nether world are criticized, and new arrangements for the figures are in some cases proposed. In general, Polygnotos conformed so far as possible to the description in Homer, *Od.* xi.

PREHISTORIC 'ANTIQUITIES ABOUT THE GREEK ARCHIPELAGO.—At a joint meeting of the Oxford Philological and Ancient History Societies, Mr. J. L. Myres gave the results of his recent collection of evidence bearing upon the earliest stages of culture in the lands bordering on the Greek archipelago. Hitherto no implements of the palæolithic period have been found in this area. Polished stone axe-heads and hammers have appeared in the lowest strata at Hissarlik, Tiryns, Mykenai, and Athens, but nothing more primitive. This is partly accounted for by the materials at hand; volcanic and other crystalline rocks having no fracture to invite the most primitive work done upon flints in more northerly regions. Chert enters largely into some Asiatic limestones, and is found in Naxos, but was apparently not used in the early period. The polished implements above mentioned are found sporadically in the whole Mediterranean basin. The Greek specimens, those from Melos and Euboia, for instance, are made out of rocks found in the neighborhood. Flakes of obsidian from Melos were fashioned at Korinth and at Kephissia in Attica. At Plataia one of the volcanic glazes of Thera was used. Definite settlements belonging to this period of workmanship existed at Hissarlik (the first town) and at Athens, where its traces have been unearthed under the Mykenæan walls behind the Stoa of Eumenes. Less decisive evidence has been gathered at Mykenai and Tiryns. Traces of similar settlements at Lechaion, Eleusis, Eubœan Castri, on the peninsula of Mynchos, and in Kos, have been made out. In Egypt just before the bronze age, came a hardened copper period. This is made out also at Hissarlik and in Thera, though in both places the copper is found along with traces of a more advanced civilization. Mr. Myres then discussed the hand-made pottery of the bronze age from Hissarlik, Thera, Syra, and other islands, and pointed out its correspondence with the earliest Cypriote specimens—these last being certainly not earlier than the bronze age. To this age belong the "marble-workers" of Paros, Antiparos, and Amorgos, as well as certain centres of Naxos, Amorgos, and Syra, and other islands, as well as at Mykenai, Tiryns, and in Attica. From hand-made the pottery of this period advanced to a rude machine manufacture. Glazes were used and some forms of orna-

ment. The specimens from Thera are remarkable and approach the Mycenaean type. This last may or may not have come later. Then followed a discussion of Mykenæan forms, with which the paper ended. Mr. Myres combated the notion of a Karian origin for the Mycenaean civilization and its products, and closed with a brief mention of new facts lately gathered by him in Krete.—*N. Y. Evening Post*, Dec. 7.

SKOPAS, THE ENGRAVER.—In the *Jahrbuch, d. d. arch. Inst.*, 1893, p. 185 sq., (pl. 2, 2) A. Furtwängler publishes as a supplement to *Jahrb.* iv, p. 72, a gem of the artist Skopas. The gem mentioned by Brunn, *Gesch. d. gr. Künstler*, II, p. 579, is a hyacinth of fine quality, a genuine work of the engraver Skopas.

THE SPLANCHNOPTES.—In the *Jahrbuch, d. d. arch. Inst.*, (1893, p. 218, sq.) M. Mayer has an article entitled *Splanchnoptes* (pl. 4; 3 cuts). The word *splanchnoptes* (Plin. N. N. xxxiv, 81, xxii, 43) is derived from *σπλάγχνα ὀπτάν*. The statue mentioned by Pliny represented a youth roasting the sacrificial inwards on a long spit or at least preparing so to roast them. Pliny xxiv, 79, and Paus. i. 23, 8 (7) are not to be connected with this statue. Two vase paintings are published illustrating the erection of the *splanchnoptes*. A statue found in 1888 near the Olympieion in Athens (*Mith. Athens*, xiii, p. 231 *Δελτίον*, 1888, p. 73, 1, Lepsius, *Marmorstues*, No. 128, Cavvadias catalogue No. 248) is published and a restoration as a *splanchnoptes* proposed. The statue is a marble copy of a bronze of the middle of the fifth century, B. C.

AIGINA.—MYCENÆAN ANTIQUITIES FOR THE BRITISH MUSEUM.—At a special general meeting of the Hellenic Society held on November 27, in London, Mr. Arthur J. Evans described a remarkable acquisition recently made by the British Museum. This is nothing less than one of the most interesting groups of Mycenaean objects ever discovered—doubly noteworthy as having been found on the island of Aigina. To discover "Mycenaean" pottery in various parts of the Mediterranean basin is no new experience, and gold objects like those of Mykenai have been found in unexpected places, such as the Danube Valley and the Crimea; but the present Aiginetan find is the most considerable and important since Schliemann's. Among the more remarkable objects of the treasure are a gold cup with returning spiral and rosette ornament; an openwork gold pendant representing a kind of Egyptian figure in a lotos-tipped boat holding two water-birds, traceable to a familiar subject of Egyptian frescoes in which the fowler is seen standing in a Nile boat holding the trophies of his chase; four gold openwork ornaments with dogs and apes and pendant disks and owls; a jewel with a lion's head and pendant ducks, apparently suggested

by a so-called Egyptian 'ægis' with the head of the lion-headed goddess Sekhet; a crescent-shaped gold plate with terminals in the shape of sphinx-like heads; a series of necklaces of gold, carnelian and amethyst beads with amulet pendants; fifty-four repoussé gold plates for sewing on the dress, gold diadems, bracelets, ring-money—representing a unit of 135 grains—and finger-rings, which, like some of the other jewels, had been set mosaic fashion with a glass-paste imitation of lapis-lazuli. The besil of one of the rings was in the shape of a Boeotian shield, and exactly represented the variety seen on coins of Salamis, where it stood for the shield of the Telamonian Ajax. It might therefore, be regarded as the badge of the Æacid rulers of Aigina itself, and Mr. Evans showed that it was an outgrowth of an earlier Mycenaean type. Various comparisons with Egyptian, Oriental, and European forms were instituted, bearing on the origin and range of the different types of objects discovered, and on the date of the deposit. It was shown to belong to the very latest Mycenaean period, hitherto almost unrepresented by finds, and it had, therefore a unique value. Though under strong Oriental influence, the art was quite distinct from the Phœnician; in place of griffins, sacred hawks, and trees we had here such decorative elements as homely acorns, ducks and owls. The art, in a word, was indigenous to the soil of Greece, and the most characteristic designs here found had their echo in the early cemeteries of Italy and the Caucasus, where "Javan" (or the Ionian Greeks) early traded with "Mesech" and "Tubal." A variety of concordant data led Mr. Evans to fix 800 B. C. as the approximate date of the deposit, and a very important fact brought to light by the ring-money of the find was that there already existed in Aigina at the time of this deposit a pre-Pheidonian standard answering to the Euboic-Attic. This was in fact the old Mycenaean standard—probably derived from the Egyptian Kat—and could be traced in rings, etc., from the earlier shaft graves of Mycenæ.

In closing, Mr. Evans made public announcement of the interesting fact that he has now discovered, chiefly upon prism-shaped gems, found mainly in Krete and the Peloponessos, some sixty hieroglyphic characters belonging to an alphabet used in Mycenaean days. The area where it is found goes southward as far as Krete, and it is possible that these signs may prove to be of kin with the hitherto undecipherable Cypriote alphabet.—*N. Y. Evening Post*, Dec. 29: *Athen.*, Dec. 2.

ARGOS.—EXCAVATIONS AT THE HERAION.—The results of the second spring campaign of the American School at the Heraion are given in Dr. Waldstein's report to the Committee of the School, which is republished on p. 63, sq. of this number of the JOURNAL.

A third, and, it is hoped the final campaign will be begun this spring under Dr. Waldstein's direction. The Institute and the School Committee are agreed in regarding this excavation as the most important undertaken by the School and they intend to concentrate all efforts upon this work.

ATHENS.—CITY WALL.—A portion of the ancient Athenian city wall to the east of the Acharnian gate at the corner of the Sophokles and Aristides streets has been discovered. The material of the wall consists of great blocks of breccia stone, and from this it may safely be concluded that we have not to do with the original wall of Themistokles, which was built of limestone on clay tiles, but with a restoration not earlier than the fourth century B. C. The newly discovered wall has been carefully photographed, and prints can be obtained from the German Institute at Athens. The wall was of very remarkable strength, the foundations measuring a little over 5 metres, which would allow for the wall above ground being about 4.90 metres. At about seven metres distance a second and thinner wall has been found, the purport of which is at present not made out. To the south of the Akropolis a whole row of drums of marble columns have been found near the Katastamatis silk manufactory. They were built in to strengthen the old city wall, and probably belonged to the Stoa of Eumenes. They must have been utilized for their new purpose in quite late Roman days, or even in the Middle Ages.—*Cf. Athen.*, March 11.

TWO PREHISTORIC TOMBS.—Dr. Dörpfeld has unexpectedly discovered between the Phyx and Areiopagos two exceedingly ancient tombs, the smaller one containing two Mycenaean vases, the larger, charcoal mixed with bones, showing that the corpse must have been burnt within its circumference. These burials he attributes to the first inhabitants of Athens, when, like Mykenai and other cities of that period, it was bounded by the rock of its Akropolis, and had its sepulture just outside the walls. At the same time a very fine conduit of cylindrical terracotta tubes, having their joints made secure with molten lead, has been found running up to the *poros lithos* channel built by Peisistratos, discovered a little time ago. Dr. Dörpfeld feels now convinced he is approaching the long-sought Enneakrounos.—*Athen.*, Jan. 14.

AN ATTIC CEMETERY.—In the *Mitth. Athen.*, (1893, No. 2) A. Brückner and E. Pernice have published an elaborate account of an Attic cemetery (pp. 78–191; pls. 6–9; 35 cuts). The cemetery lies N. E. from the Dipylon, close to the ancient city wall, on the S. side of the present Peiraieus street, opposite the orphan asylum Hartzikosta. The notes

upon which this account is based cover 231 graves. Of these 19 belong to the Dipylon period, the remainder with very few exceptions to the sixth, fifth, and fourth centuries B. C., chiefly to the fifth and fourth. Of 186 later graves, 45 were cremation-graves in which the body was burned, 8 *ostothekai*, 43 shaft tombs in which the body was buried, 60 graves built of tiles with buried body, 17 earthen vessels in which children were buried, 10 handsome graves of great slabs of stone in which the body was buried, 3 large stone sarcophagi, body buried. This entire cemetery was covered with a layer of earth, which was in turn used as a cemetery, probably shortly after the time of Sulla. The contents of many graves are described in detail with illustrations. Special attention is paid to the finds of the "geometrical epoch." The vases in the graves of this period are of a uniform character (*fragen ein einheitlicher Gepräge*) with few exceptions. The variety of shapes is such as to give a pretty complete view of the house-pottery of Athens at this time. In the geometrical epoch, burial was much more usual than cremation. The body was put in a pithos or amphoræ before burial or was buried in a shaft. The splendid large Dipylon vases were *σῆματα*, placed over the graves. As in later times the horseman on the stele showed that the deceased had been an *ἱππεύς*, so the naval battle on the vase probably shows that the deceased had performed naval service. The bottom of the vase was set in the ground and was open below, that offerings poured into it might go down to the grave. It is evident that the cult of the deceased lasted after burial in the belief that the dead must be continually supplied with food and drink. This is a stage earlier than that described in the Homeric poems.

Among the later graves were evidence of two kinds of cremation. Some bodies were burned in the grave, others were burned outside and the bones then buried in a vessel. The graves for burial without burning are classified as simple shaft-graves, clay coffins, and stone coffins. In the first class the corpse seems to have been laid without any protection upon the bottom of the grave. The clay coffins were narrower than the simple graves. Children's bodies were buried in earthen troughs. A second variety of clay coffins consists of amphoræ. This variety was in the later period usual only for children. When the body was burned in the grave, it lay upon a bed of vine-branches. The objects buried with the ashes were the same as those buried with unburned bodies. The graves with burned bodies date from the sixth to the fourth century B. C. The bones buried in vessels after burning were wrapped in linen. The bed of vine-branches was spread under the unburned bodies whether cremation was to take

place or not. The obolos to be paid to Charon as toll was not found in a single instance. The lekythoi, *etc.*, in the graves were almost invariably close to the body, *i. e.*, laid within the coffin, not upon the grave. The gifts in the graves of women were generally more richly furnished than those of men, containing all sorts of toilette articles, *etc.*

SANCTUARY OF DEMETER CHLOE.—In the *Mith. Athen.*, (1893, p. 102 sq.) Otto Kern, in an article entitled *Demeter Chloë*, published a fragment of an oracle, found in 1889 southwest from the bastion upon which stands the temple of Athena Nike. A second smaller fragment was published by Lolling, *Arch. Δελφικόν*, 1889, p. 113. The oracle belongs to the second century after Christ. The Delphic Apollo reminds the Athenian people that offerings are due to Demeter Chloë and her daughter whose sanctuary is by the Akropolis, where first the fruit of sacred grain sprang up. The exact site of this sanctuary is unknown. The early Athenian tradition ascribed the invention of the plough to Buzyges, and Athena Buzyge was never forgotten. The Delphic Apollo, however, supports the claims of the Eleusinian goddess.

PRECINCT OF A GOD OF HEALING.—The Precinct of a God of Healing on the western slope of the Akropolis at Athens was uncovered in the excavations for the discovery of the Enneakrounos. After a general description of the precinct by Dörpfeld, the separate finds are discussed by A. Körte in *Mith. Athen.*, 1893, p. 231, (pl. xi; 5 cuts). The discoveries are ex-votos of the kinds usually associated with Asklepios. But this precinct cannot originally have belonged to Asklepios, being too old. Asklepios was brought to Athens, as is here proved, in 420 B. C. It is not certain what hero of healing held this precinct. Perhaps it was Alkon.

SCULPTURES.—In lengthening the course of the Athens-Peiræus railway, a singular metope has been found, differing from all ancient examples in classic temples by the fact of its representing three persons in habits of mourning. It belonged probably to some sepulchral monument. On both sides may be seen the triglyphs.—*Athenæum*, Mch. 18.

ARCHAIC EQUESTRIAN FIGURES FROM THE AKROPOLIS.—F. Winter discusses Archaic Equestrian Figures from the Akropolis in the *Jahrbuch d. d. Arch. Inst.* (1893, p. 135 sq.). The starting point of the discussion is the rider in variegated costume, which Studniczka (*Jahrb.* 1891, p. 239 ff.) claims as a monument of the battle of Marathon. The equestrian figures from the Akropolis are carefully described and arranged in chronological order, and accurate observation shows that the figure above mentioned is not the latest of the series. Hence it

cannot be a monument of Marathon. Winter regards it as a figure dedicated by one of the Athenians who had served in Thrace, perhaps under Miltiades. A base with the inscription Diokleides, son of Diokles, in letters of the time of the Peisistratidai, appears to belong to this figure. The discussion touches upon many points of interest in connection with Attic art before the Persian wars.

RELIEFS OF ELEUSINIAN DEITIES.—B. Sauer publishes two reliefs representing the Eleusinian deities in the 'Εφημερίς Ἀρχαιολογική (1893, p. 35 sq.: Pl. 8; supplementary pl.). The first is published by Schöne, *griechische Reliefs*, 57, and wrongly interpreted. This relief, which was found on the Akropolis and is now in the Akropolis Museum, is a work of the Attic school dependent upon Pheidias. It represents Demeter and Kore sending forth Triptolemos, but the part with Triptolemos and his serpent chariot is almost entirely gone. The second relief, now in the Glyptothek at Munich, was found at Rhamnous (Brunn, *Glyptothek*, 85; Le Bas, *Voy. Arch.*, pl. 19; Lützow, *Münchener Antiken*, 34). This cannot have been part of a frieze, but was a votive relief, representing Demeter and Kore. The right-hand figure holds a torch, and is therefore Kore, the left-hand one, holding a sceptre, is Demeter. The slab is broken off at the left. Perhaps figures of worshippers were once represented.

RELIEF OF HERMES AND THE NYMPHS.—A votive relief to Hermes and the Nymphs is published by P. Cavvadias in 'Εφημερίς Ἀρχαιολογική, 1893, p. 129 sq. (pls. 9, 10). The relief was found in June, 1893, near the distillery Hebe, along the old line of the railway north of New Phaleron. On one side is represented a quadriga before which stands Hermes, as is shown by an inscription. In the chariot is a youth holding a female by the waist. Inscriptions designate the youth as Echelos and the female as Basile. Echelos is doubtless the eponym of the deme Echelidai. The worship of Basile at Athens is known (*C. I. A.*, iv, No. 53^a; cf. *A. J. A.*, iii, p. 38 sq.), but her connection with Echelos is new. Perhaps it is referred to in the narrative of Diodoros, iii, 57. On the other side of the stone are three female figures (the nymphs), a bearded man with horns, interpreted as Kephisos, a bearded man interpreted as Ilissos or Munychos, and a figure probably representing Artemis Agrotera or Munychia. Of the inscription only 'Ερμῇ καὶ Νύμφαισιν a can be made out. There are abundant traces of color on the stone. According to Diodoros, Basile is identical with the Great Mother, who is sometimes associated with the nymphs (Pindar, *Pyth.*, 3, 77-137; Paus. i, 31, 4), hence the relief first described is not out of place here. The work of the reliefs, especially the first, is excellent, and strongly influenced by the frieze of the Parthenon.

RELIEF OF ACHELOUS.—In excavating near the Ilissos the Athenian Archaeological Society have discovered an important votive relief of the iv century B. C. It represents the river Achelous in the form of a male divinity seated, the name being inscribed in Greek characters on the base. Near it stand Hermes and Herakles, and behind is the figure of a woman, who may represent the daughter of Achelous, Callirrhoe.—*Athenæum*, Oct. 14.

A NIKE BY BRYAXIS.—P. Cavvadias, in an article entitled *Nike from Athens and the Pedestal of Bryaxis* (*Ἐφημερίς Ἀρχαιολογική*, 1893, p. 40 ff.; pls. 4-7; supplementary pl.), publishes a torso of a wingless Nike found in 1891 near the stoa of Attalos (*Ἀρχ. Δελτίον*, 1891, p. 89, No. 18), and the pedestal signed by Bryaxis found about fifty metres from the same spot (*Ἀρχ. Δελτ.* 1891, p. 34, No. 34; p. 55; *Bull. de Corr. Hell.*, 1891, p. 369; 1892, p. 550). After showing that the two may have formed parts of one monument, he reconstructs the whole, so that a column stands upon the pedestal and the Nike upon the column.

ADDITIONS TO THE MUSEUM.—The *Ἀρχαιολογικὸν Δελτίον* for September-December, 1892, states that the National Museum at Athens received additions amounting to fifty-six numbers. Several objects are sometimes grouped under one number. The objects described are of various kinds, the most interesting being apparently the vases from Eretria. During the same time the epigraphical museum received seventeen inscriptions, apparently all sepulchral. The museum in the Peiraieus received seven additions, five of which are brief inscriptions, one a shattered relief, and one a set of four amphora-handles.

RED-FIGURED VASES.—R. Weisshäupl, under the title *Red-figured Vases of Attic Tombs*, publishes in the *Ἐφημερίς Ἀρχαιολογική* (1893, p. 13 ff.: Pls. II, III; two cuts) a fragmentary vase in Athens and a lekythos from Eretria. Both are red-figured, and upon each is represented a grave-stele adorned with fillets. On the fragmentary vase are two other stelai, showing that the scene is in a cemetery. On this vase all the stelai are white. On the other the stele is red. To the left of the stele on the fragmentary vase stand two young armed men, to the right a white-haired man, behind whom is a person holding a horse. On the other vase a youth and a maiden are adorning the stele. The youth holds a helmet, and against the stele leans a shield. Other similar vases are compared. The date assigned to these is about the middle of the fifth century B. C.—“hardly 10-15 years later than 450.”

EARLIEST ATTIC INSCRIPTION.—The earliest Attic inscription on a “Dipylon” vase of later style (*C. I. A.*, iv, p. 119, No. 492^a, and elsewhere), is read by F. Studniczka, *Mith. Athen.*, 1893, p. 225 (pl. x), as fol-

lows: *ὅς νῦν ὀρχηστῶν πάντων ἀταλάτα παῖζα|τοῦτο δεκάμ μιν.* Here *δεκάμ* is the infinitive (used as imperative) of a new verb meaning "receive."

EPHEBIC INSCRIPTIONS.—H. G. Lolling publishes two Ephebic inscriptions in the *Ἐφημερίς Ἀρχαιολογική* (1893, p. 65 ff.). The first is the latter half of a list of epheboi and their officers. Careful examination of the names mentioned and comparison with other inscriptions enable Lolling to fix the date at 143 A. D. The second list is not a little later than the first, but still earlier than the time of Caracalla.

HONORARY DECREE OF DIODOROS.—K. D. Mylonas publishes an Attic decree in the *Ἐφημερίς Ἀρχαιολογική* (1893, p. 49 sq.). It is a decree in honor of Diodoros, son of Sokrates of Aphidna, passed by a unanimous vote of sixty members of the association of Soteriastai. It provides that Diodoros be crowned annually because he founded the association and benefitted it. The stele with the decree is to be placed in the temenos of (Artemis) Soteira, the site of which is unknown in Athens. The decree is dated in the archonship of Theopithes, and an archon Euthydamos is also mentioned. Both are new. Other archons mentioned are Nikandros, Diokles of Melite, Menandros, and Kallikratides. The dates of these being approximately known, it appears that Euthydamos was archon one or more years before Nikandros, whose date is 62-53 B. C., and Theopithes a year or more after Kallikratides, whose date is 39-32 B. C. A dedicatory inscription to Artemis Soteira is published, and the opinion expressed that the sanctuary of Artemis Soteira existed in Athens as early as the third century B. C., perhaps near the Dipylon.

DECREE OF A RELIGIOUS ASSOCIATION.—Dr. Lolling publishes in the *Ἀρχαιολογικόν Δελτίον* for 1892 (p. 100 sq.), a decree of a religious association ordering wreaths for their *ἐπιτελεῖν* and *γραμματεῖς*. The date is the month of Munychion, in the archonship of Demokles, 278-7 B. C. Munychion was the favorite month for decrees of this nature. What goddess was worshipped by this association is not known, as she is called simply *ἡ θεά*. Her sanctuary was perhaps a rock-cut shrine on the southern slope of the Pnyx hill, near where the inscription was found in the quarry of Alk. Kampas.

TWO WELLS.—Dr. Dörpfeld announces the discovery of two wells filled with rubbish, which from their contents, viz., bits of vases of the VI century B. C., are supposed to have been filled in at the Pisis-tratæan period. Their having been disused at this time confirms the notion that they were supplanted by the fountain of Enneakrounos, of which he is in search.—*Athen.*, Feb 11.

WORK OF THE ENGLISH SCHOOL.—Prof. Gardner writes: "In Athens some extremely interesting discoveries are due to students of the British School. Mr. Yorke has been studying the well-known balustrade of the temple of Wingless Victory—perhaps the most beautiful of all the reliefs preserved to us from the best Greek times. He has not only discovered some new evidence as to the arrangement of this balustrade, but has also found three new pieces belonging to it, two showing the shoulder and breast of a winged Nike, and one forming the greater part of a wing. These new fragments unfortunately do not join on to one another, or to any of the pieces already known and exhibited in the Akropolis Museum. But their style, especially in the modelling and the treatment of drapery, shows that grace and delicacy for which the balustrade reliefs are so much admired, and thus they are in themselves a valuable acquisition even in a place so rich as Athens in sculpture of the finest period. It is remarkable that they were all found lying among other fragments either on the Akropolis or close under it, but by some strange fortune they had either been overlooked or unrecognized hitherto.

Mr. Bather has been employed upon a most important piece of work, which has been very successful in its results. He has undertaken the sorting, piecing, and cleaning of the bronzes from the excavations on the Akropolis, which, with the exception of a few conspicuous pieces that had been selected for exhibition, were packed in indiscriminate heaps of fragments. As the result of the best part of two seasons' work, there have now emerged from this mass about sixty inscriptions (mostly dedications), several early reliefs of the greatest interest alike for subject and style, and numerous pieces of ornament, decorated handles, and so forth, many of them of great beauty of workmanship. A selection of these will be published in the *Hellenic Journal*, and it will then appear that the Akropolis at Athens is second only to Olympia in the excellence and the variety of the early bronzes it has yielded.—E. A. G. in *Athen.*, April 8.

SEPULCHRAL RELIEF.—A *Sepulchral Relief from Athens* (Δελρίον, 1892, p. 28, 1) representing three mourning women is discussed by P. Wolters in *Mittheil. Inst. Athen.*, xviii, p. 1 sq. (pl. 1). The relief is a metope between tryglyphs on the same block. It doubtless belonged to a sepulchral monument in the form of a temple, and is the work of a good artist of the fourth century. See under SCULPTURES.

GRAVE-STONE.—A gravestone with loutrophoros is discussed by P. Wolters in the *Mittheil. Inst. Athen.*, xviii, p. 66, sq. Below the inscription for Aristodemos is one for his mother Smikythe. This might seem to show that the loutrophoros has no special reference to an un-

married person, but the stone was evidently erected for Aristodemos, and the inscription for Smikythe was added later. Besides, one handle of the loutrophoros is worked off as if to destroy its significance. The same is true in the case of another stone, *Δελτίον*, 1891, p. 115, 4.

CHALKIS.—Workmen engaged in deepening the Euripus between Chalkis and the mainland drew up from the water a small statue of a boy with the lower portion partly broken off. The boy carries a mantle and holds a shaggy cap in his left hand close to his stomach. The statue will be sent to Athens along with a sculptured fragment representing the head of a youth in a good style of art. Besides these, there were found eighteen marble slabs, seventeen of which were tombstone-stélés with simple inscriptions dating from Roman times.—*Ἐφημερίς Ἀρχαιολογική*, 1893, p. 106 :—*Ἑστία*, April 18.

CORINTH.—A MIRROR.—A *Folding Mirror from Corinth* is discussed by K. D. Mylonas in the *Ἐφημερίς Ἀρχαιολογική* (1893, p. 161 sq. pl. xi; 2 cuts). On the lid of the mirror is a relief of a beautiful female head in profile. Comparison with coins makes it probable that Aphrodite is represented. A list of five Greek mirrors with single heads upon them is given, followed by reference to a number of similar Etruscan mirrors.

INSCRIPTIONS.—Inscriptions from Corinth, twenty-six in number, are published by A. N. Skias in the *Ἐφημερίς Ἀρχαιολογική* (1893, p. 113 sq.). Seven of these are in Latin. All appear to be of late date. Most of them are sepulchral.

DELOS.—The French School has laid bare the ancient theatre.—*Ἐφημερίς Ἀρχαιολογική*, 1893, p. 106.

DELPHI.—The discoveries at Delphi during the past year were chiefly epigraphical, but architectural and plastic finds also took place. The foundations and architectural members of a Doric building about ten metres in length were found. Homolle believes this to be the treasury of the Athenians (Paus. x. 2, 5). The metopes of this structure are adorned with fine archaic sculptures. Of these there were found an Athena, a Herakles, a Centaur, a bull, three heads, etc. Beside this building there was found an archaic figure of the so-called Apollo type in excellent preservation, and another head of the same type. Over 150 inscriptions have been found.—*Ἐφημερίς Ἀρχαιολογική*, 1893, p. 106.

STATUE OF APOLLON.—At Delphi an important discovery has been made, throwing more than ordinary light on the history of Greek sculpture. Besides the remains of considerable buildings, amongst which, it would appear, must be counted the walls belonging to the temple of the Pythian Apollo, an archaic marble statue of the god has

just been found imbedded in a wall, for which it was used as building material. The building where it was found is near the recently discovered treasury of the Athenians, and the statue is in a splendid state of preservation, save the end of the nose and the toes. It represents Apollo standing, and is of more than natural size. The features and the attitude of the whole body are of an entirely primitive character, the face being almost flat and rigidly triangular in contour, and the members stiff and angular so as to give the figure more the appearance of an antique Egyptian statue than of the known Greek figures of Apollo, as, for example, the statues of Orchomenos and Thera. The arms and hands fall close to the sides, the fingers being closed in the fist. The ears are larger than natural size, and the hair, bound with a *tænia*, descends over the back, while over the brow and shoulders fall locks of cylindrical-shaped curls. The workmanship is very accurate—more so, perhaps, than might have been expected in a work of such primitive style. It is probably a copy of some ancient *xoanon*.—*Athen.*, Aug. 19; *cf.* June 17.

TREASURY OF THE ATHENIANS.—M. Homolle writes: "We are putting together by degrees the fragments of the Treasury of the Athenians already in our possession—architectural pieces, sculptures from metopes and pediments. Everything seems to confirm the conjecture I formed as to the character of this monument: the material of which it is made, the inscriptions with which it is covered, the style of the reliefs or statues with which it is ornamented, the subjects which are there represented, almost all relating to Herakles and Theseus, the two heroes of Athens. The building, which has the form of a temple *in antis*, like the Treasuries at Olympia, is small, though it exceeds the dimensions of the largest of those. I hope that I do not exaggerate in describing it as a masterpiece of archaic art. I know no monument, among the works of the beginning of the v century, of which the execution is more sharp, delicate and elegant. The sculptures have the same qualities of grace and precision. Their archaic severity is tempered by a softness of modelling rare in works of this date, and by a certain richness that both surprises and charms one. Apart from this, they have a special importance for the history of art, if they are—as may be inferred from the testimony of Pausanias, and as I hope to prove also from their style—a work of the years 490–480. For they would thus put us in possession of monuments strictly dated, and of an indisputable artistic standard. Within the last few days our archaeological spoil has been increased by an archaic head of Apollo, of colossal size, measuring .67 centimetres; and by a statue of the same god, or at least of the archaic type called Apolline, which is

perfect all but the feet, and is in the finest state of preservation."—Report from M. HOMOLLE in *Acad.*, June 24.

INTERRUPTION OF THE EXCAVATIONS.—M. Homolle publishes in the *Paris Temps* of Oct. 8 a letter in regard to certain statements made in the *London Standard* of Aug. 11. He states that the excavations at Delphi were not interrupted by order of the Greek government, but were suspended voluntarily. The suspension was due to certain high-handed acts on the part of Greek officials, which led to the recall of one of these inspectors. M. Homolle also denies that any secret has been made of the finds, or that they have been kept from inspection. He adds that the difficulties have been satisfactorily settled.

ELEUSIS.—At Eleusis Mr. Philios had found another piece of the city wall, and sufficient remains have come to light to make the whole line intelligible. He has also found an ancient well, which he thinks is the famous Well of the Fair Dance, where the Eleusinian women first danced and sang to Demeter.

EPIDAUROS.—Excavations were renewed in January, 1893. The foundations and many architectural members of a stoa-like building, probably a propylon were uncovered. Votive inscriptions and one honorary inscription of the IV century B. C. were found.—*Εφημερίς Ἀρχαιολογική*, 1893, p. 105.

KEPHALE.—In the *Mith. Athen.*, 1893, p. 209 sq., A. Brückner published an *Inscription from Kephale* (Keratea): *ἄρος τεμένους Ἀφροδίτης Κεφαλῆθεν*. The name of the deme may be derived from its position on the height of land between the valleys of Kalyvia-Markopoulo and Potami.

KERATIA.—At Keratia in Attica an archaic figure above size of the type called Apollo has been found. The arms are wanting, as are the legs below the knees.

KOPAÏS.—On the island Goulas in Lake Kopais, the French have discovered a very ancient building resembling the palace at Tiryns.—*Εφημερίς Ἀρχαιολογική*, 1893, p. 106.

LYKOSOURA.—In the *Mith. Athen.*, 1893, p. 220 sq., W. Dörpfeld briefly discusses the temple at Lykosoura. The temple must, judging from general workmanship as well as from dowels, etc., be later than the fourth century B. C. The marble sculptures, known to be by Damophon, are of the same date as the temple, therefore Damophon is a later artist than has been supposed. Probably temple and sculptures belong to the second or first century B. C.

MARATHON.—The tomb at Marathon is described and discussed by B. Staes in the *Mith. Athen.*, XVIII, p. 46 sq. (pl. II-V; 6 cuts). The mound has been thoroughly investigated, and its contents

prove conclusively that it was erected over those who fell in the battle against the Persians. The vases found show that some celebration was held after the funeral rites, and that a celebration, probably annual, was held for some years at the mound. Ten vases found in and at the mound are published. The vases found belonged to the "Attic-Corinthian," "Proto-Attic," black-figured and red-figured styles.

MEGALOPOLIS.—Prof. Gardner wrote from Athens, on March 23, 1893: The excavations of the British School at Megalopolis were resumed last week. Our intention this season is to clear completely the Thessilion, or parliament-house of the 10,000 Arcadians, which we had already partially excavated. The Thessilion gives us an example of a Greek public building of an entirely new type, skilfully adapted to the purpose for which it was designed; its columns radiate from the centre, so as to obstruct as little as possible the view from all parts of the house, while they still preserve in their plan the lines parallel to the sides of the building necessitated by the structure of its roof. Mr. Benson and Mr. Bather are in charge of the excavations, and they hope also to test once more the possibility of any further topographical discoveries in the neighborhood of the Agora, when the chief landmarks have already been fixed by our previous work.

PUBLICATION OF THE REPORT.—An elaborate report upon the important excavations undertaken at Megalopolis by members of the British School at Athens during the last three years has been published under the auspices of the Hellenic Society. The volume consisting of some two hundred pages folio, fully illustrated with plans and architectural drawings, is issued to members of the Hellenic Society and to subscribing libraries in lieu of the ordinary issue of the *Journal of Hellenic Studies*, of which no volume was published in 1892.—*Athen*. Jan. 28.

MR. LORING'S PROTEST.—Mr. William Loring, in a letter from Athens published in the *Athenæum* (Aug. 5), gives his reasons for having changed his former views concerning the date of the theatre at Megalopolis and for having adopted Dr. Dörpfeld's theory in opposition to that of Mr. Ernest Gardner. He protests against the fact that his name was printed alongside of Mr. Gardner's after chap. iv of the publication on the "Excavations at Megalopolis," since he had withdrawn his signature while the proof of the chapter was still in his hands. A more recent visit to Megalopolis and a more searching examination had convinced him that the chief argument for his former opinion was weak, *i. e.*, a difference of technique between the seats of the theatre and the lower steps of the neighboring building, the "Thessilion." What had seemed a difference of technique now appeared only a difference in the degree to which the stone had been worn and weath-

ered. Mr. Gardner's other argument, mainly epigraphical, he never took much account of. An inscription on one of the seats, which Mr. Gardner dates from the middle of the 4th century, very soon after the foundation of Megalopolis, Mr. Loring thinks may have been much later, allowing time for a former theatre, on a higher level and coeval with the *upper* steps of the "Thessilion" portico—Dr. Dörpfeld's theory.—*Athenæum*, Aug. 5.

PROF. DÖRPFELD'S VIEWS.—In the *Mith. Athen.* (1893, p. 215, sq.) Prof. W. Dörpfeld briefly states his disagreement with the views of E. Gardner relative to the theatre at Megalopolis and the stage of Greek theatres in general. Dörpfeld still holds to his belief that there never was a raised logeion before the skene. A more detailed treatment of the matter is promised.

MYKENAI.—Excavations have been renewed by the Greek archaeological society. The report of Sept. 30th states that the excavation of the last tholos tomb has been begun. Near it were found three new chamber tombs. A variety of objects of gold, terracotta and stone have been found.—*Ἐφημερίς Ἀρχαιολογική*, 1893, p. 174.

OLYMPIA.—In the *Archäologischer Anzeiger*, 1893, 4, p. 197 sq., J. Six returns to the Eastern Pediment at Olympia, and supports (with some modifications) the views expressed by him in the *Journal of Hellenic Studies*, x, p. 98 ff.

OLYMPIA.—ZEUS-SOSIPOLIS.—*Sosipolis in Olympia* (Paus. vi, 20, 2) is discussed by C. Robert in the *Mith. Athen.*, xviii, p. 37 sq. (cut). Sosipolis is identified with Zeus, and his connection with Eilethyia (Paus. vi, 20, 3) points to a local legend of the birth of Zeus. The sanctuary of Sosipolis was close behind the exedra of Herodes.

PAROS AND ANDROS—INSCRIPTIONS.—In the *Mith. Inst. (Athen. Abth.)*, xviii, p. 7 sq., E. Pernice publishes *Inscriptions from Andros and Paros*. The fifteen Andrian inscriptions are chiefly sepulchral and dedicatory. One mentions several Cretan cities, one is a corrected copy of the decree published by Weil, *Mith.*, i, p. 239. Of the two Parian inscriptions the first is a late sepulchral inscription, the second records the contributions of a thiasos of hetairai for the repair or establishment of a spring, altar and *thalamos* of the goddess. This *hetairai-inscription of Paros* is further discussed by E. Maass (p. 21 sq.). The goddess Sistro worshipped by the thiasos is identified with Aphrodite, perhaps with Aphrodite Porne.

RHODES—CHRONOLOGY OF RHODIAN INSCRIPTIONS.—M. Holleaux has a short paper with this title in the *Revue de Philologie* (April-June, 1893). He says: "The complaint has often rightly been made that the chronology of the Rhodian inscriptions is still too uncertain and confused.

Lately an unexpected discovery was made by M. Hiller von Gärtringen and published by Prof. Mommsen (in the *Sitzungsb.* of the Berlin Academy); this was the deciphering of perhaps the only one of the Rhodian inscriptions that is exactly dated." This furnishes the foundation of M. Holleaux's paper.

The largest and one of the most important of the Rhodian inscriptions is one published by Mr. Paton in the *Bull. Corr. Hellen.*, where beneath a dedicatory formula is a list of some five hundred proper names in four columns. This inscription he dubs A, and on account of the word *Πρωαῖα*, which designates the biennial fetes in honor of the Roman people, it cannot be anterior to the year 201, and is probably more recent than 197, when the first year of quiet began. In determining its age more exactly, it is necessary to glance at the dated inscription read by M. Hiller von Gärtringen, cut in honor of a Rhodian citizen delegated as ambassador to five distinguished Romans, among whom were L. Murena and L. Lucullus, which places it between the years 82 and 74. At the close of this inscription the Rhodian sculptor Ploutarchos, son of Heliodoros, has signed his name. Now the signature of Ploutarchos and his brother Demetrios had already been read on two pedestals discovered some years ago, below two inscriptions published by Loewy as Nos. 194 and 193, or α) and β); also in a third inscription γ), the name of one of them should be restored. Therefore the three inscriptions, α, β, γ, are about contemporary with von Gärtringen's monument, and belong to the early years of the first century. Now inscription A should be dated to very nearly the same time as γ on account of the appearance of some of the same names in both, but it is somewhat later, because the sons of two of the persons enumerated in γ appear in A. Other arguments agree in assigning to inscription A about the date 50 B. C., or rather a few years before.

The close of the first half of the first century having been established for A, M. Holleaux proceeds to group around it the greatest possible number of other inscriptions. Among other important results, it is found that not only did the atelier of the sculptors Ploutarchos and Demetrios, sons of Heliodoros, flourish contrary to received opinions in about 80 B. C., but that other sculptors of the Rhodian school flourished at the same time, such as the two Epicharmos (Epicharmos of Soloi and Epicharmos of Rhodes, his son), Charinos of Laodicea, Theon of Alexandria, and his collaborator, Demetrios of Rhodes, son of Demetrios.

The chronology of the Rhodian sculptors is thus quite modified. The sculptors here cited really lived on the average about a century

later than is supposed by Loewy (*Bildhauerinschrift*). This discovery may not contradict the theory that the period of greatest activity of Rhodian sculpture was during the second century, but it shows that it was still flourishing during the first half of the first century. The date of the Laocoon would vary by about a century, according to certain identifications of names in the inscriptions with the person and geneology of Athanodoros, son of Agesandros, one of its sculptors. The writer then proceeds to establish a synchronism between A and seven other inscriptions, and makes interesting remarks regarding three Rhodian functionaries mentioned with the titles ἀγεμῶν ἐπὶ Καύνου, ἀγεμῶν ἐπὶ Καρίας and ἀγεμῶν ἐπὶ Λυκίας.

The tradition, founded entirely on a text of the rhetorician Aristides, that when the Rhodians reached the height of their power they possessed the island of Karpathos, and that they long retained possession of it, has been confirmed by some inscriptions found at Karpathos itself, where some names occur which are also to be found in inscription A.

SALAMIS.—In the isle of Salamis some very ancient tombs have come to light, which are thought to belong to the warriors who perished in the famous battle with the Persians. Signor Kavvadias has gone to visit them.—*Athenæum*, Oct. 14.

In the *Mith. Athen.*, 1893, p. 208, sq., A. Körte publishes *Inscriptions from Marathon and Salamis*. The one from Marathon (Beï) is on an altar with a relief representing two standing draped females. It reads: Ἀΐδα Παραμόνον εὐχὴν Μητρὶ θεῶν. Date, second century B. C. The three from Salamis are short and apparently of little interest. They read: 1) Κυκ]λοβόλου[Μυρρι] νουσίου(?) θύτην[μνηθέντα δ]φ' ἐστίας, 2) Βοίδιον κοσμίας, 3) Φρόνυχος Οἰνίλου Κυδαθηναίεύς.

SPARTA.—The excavations by the American School at Sparta in 1893 are reported in a previous number of this JOURNAL (vol. VIII, p. 410, sq.). In connection with them we would call attention to the article on *The Topography of Sparta*, by Dr. Crosby, published in the same number (p. 335, sq.).

STRATOS.—From Stratos, in Akarnania, M. Joubin reports the discovery, besides the remains of an ancient temple, of the single archaic inscription in genuine Akarnanian dialect that has hitherto come to light.—*Athen.*, June 14.

THORIKOS.—The excavations of the Greek Archæological Society have uncovered remains of buildings the purpose of which is not yet clear. Fragments of vases similar to those found at Hissarlik and Mykenai have been found.—*Εφημερίς Ἀρχαιολογική*, 1893, p. 176.

THYRREION.—A. N. Skias publishes inscriptions from Thyrræion in Akarnania in the *Εφημερίς Ἀρχαιολογική*, 1893, p. 30, sq. The first

inscription is a record of the sale of some property by public officers. The five remaining inscriptions are sepulchral.

VELESTINO.—At Velestino in Thessaly were found:—1) a grave-stone in the form of a *naïskos*. The relief represents a draped female holding in her left hand her garment, and with her right taking something from a box. Excellent preservation; work of the fourth century. 2) Grave-stone. In the upper part, bust of a beardless youth. Inscription *Θεόδωρε Ἀριστομένους χαίρε*. 3) Grave-stone with inscriptions: *Σωτήριχε Θεοδώρου[φ]ύσει δέ Σωτηρίχος χαίρε* and *Ἡγησάνδρα Θεοδώρου χαίρε*.—*Εφημερίς Ἀρχαιολογική*, 1893, p. 107.

CHRISTIAN ANTIQUITIES.

BYZANTINE ARCHITECTURE IN GREECE.—Under the auspices of the Managing Committee of the British School at Athens there has been prepared for publication an elaborate work on the above subject, consisting of illustrations of existing examples of architecture and iconography in Greece, principally ecclesiastical, from the fourth century onwards, with descriptions of the same, by Mr. R. W. Schultz, a travelling student in architecture of the Royal Academy, 1887–89, and Mr. Sidney H. Barnsley, architect, both lately students of the British School at Athens. In a supplement will be given drawings of some of the churches of Salonica. The authors claim that this will be the first exhaustive treatment of this most important subject. It represents the result of nearly two years' travel and labour in Greece, and of many months' labour at home in working up the material. In addition to full and detailed drawings of buildings which had been briefly and incompletely illustrated in such works as those of M. Couchaud, of Messrs. Le Bas and Waddington, of M. Blouet, and of Messrs. Texier and Pullan, a large mass of fresh material has been collected, and coloured drawings of the fine mosaics and marble work in the church of Daphne, near Athens, and in the monastery church of St. Luke of Stiris, between Livadia and Delphi, are now published for the first time. Some fine churches in various parts of Greece, which have not hitherto been published, are also included in the work.—*Athen.*, June 17.

MEDIÆVAL FRANKISH MONUMENTS.—The well known French archæologist, G. Schlumberger, has contributed to the *Ami des monuments* (1893, Nos. 35, sqq.) a series of papers on the records of the French in Greece during the Middle Ages (*Souvenirs et Monuments de la Grèce Française au Moyen Age*). Although mainly historical this study speaks of the ruins of the feudal castles and of the coinage of these French rulers who belonged to the flower of the French nobility.

SECULAR BYZANTINE ART.—G. Mavrogiannis in the *Ἐφημερίς Ἀρχαιολογική*, 1893, p. 22 sq. writes of the secular painting of the Byzantines. Byzantine art was not confined to sacred subjects, though the secular paintings have come down to us only in description and miniature. Portraits, hunting and fishing scenes, and historical paintings were numerous. The first extant notice of secular paintings is in a letter of St. Neilos, a contemporary of Chrysostom, in which hunting scenes, etc., are mentioned. Under Justinian mosaics were made representing secular subjects, but in the ecclesiastical style. Under the emperor Mauricius (582–602) battle-pieces are recorded. Under Theophilus secular art flourished even more, while under the iconoclast rulers in general, art was confined to secular subjects. Paintings made at the command of Manuel and Andronicus Comnenus are known by description. Caricature also flourished in Byzantine times. In the old churches at Mistra portraits of Manuel Lascaris and two Palæologi are still preserved. It is evident that Byzantine secular art was different from the sacred art of the time, and formed an important element in Byzantine life.

EARLY CHRISTIAN IVORY.—Mr. G. Schlumberger has presented to the *Acad. d. Insc.* a very ancient Christian ivory. The sculptured front represents an apostle preaching before a crowd of auditors in the costumes of that period. It is perhaps Saint Paul preaching to the Gentiles. These persons are grouped under the gate of a miniature town of which the principal edifices very different in form are figured in relief, peopled with little spectators who are listening to the preaching of the saint from their windows and balconies. This ivory, which very probably adorned some bishop's chair, possesses still further interest in the peculiar disposition of the edifices, the apparently intentional irregularity with which they are arranged side by side, the lack of symmetry, the strongly characterized variety in their forms and the presence of a huge central portico semi-circular in shape. All these circumstances go to prove that the artist wished to represent a particular city, and probably a well-known city at that. Mr. Duchesne thinks that the body of a young man half-falling from an open window, points to the story of Iconium and the young man who fell from the window while asleep. He sees also in the figures of a young woman and her mother on the other side of the ivory a reference to the legend of Thecla, the young girl of Iconium who was so absorbed by the preaching of St. Paul that her mother could not drag her from the window.—*Chronique des Arts*, 1893, No. 12.

CONSTANTINOPLE.—COLUMN OF ARCADIUS.—In the *Jahrbuch d. k. deut. Arch. Inst.*, 1893, p. 231 sq., J. Strzygowski writes of *The Column of Ar-*

adius in Constantinople (11 cuts). This column stood on the seventh hill of the city, called Xerolophos. It was erected A. D. 403, but the statue of Arcadius was not placed upon it until 421. It was injured several times by earthquakes, and finally removed in 1719 all but the pedestal and one stone of the shaft. These parts are carefully described. The pedestal is now visible on but two sides. The reliefs are almost entirely gone, but doubtless represented the emperor, to whom the provinces are paying allegiance in presence of soldiers or the like. The spiral reliefs of the shaft are gone with the shaft itself. Drawings by Sandys (1610) and Melchior Lorch (1557-59) give an idea of the general appearance of the columns and the character of the spiral reliefs. Both drawings are published after earlier publications. The reliefs represented the deeds of the emperor. The column of Theodosius is also discussed and a drawing of it published after Ducange, *Const. Christ.* I. p. 79. This column was erected A. D. 386, and removed about A. D. 1500. The column of Arcadius was in many respects an imitation of this, which stood on the second hill of the city, called Taurus. Attention is called to the drawing in the Louvre (Menestrier, *Columna Theodosiana*, etc., 1702; Banduri, *Anonymi Antiquitatum Constantinopolis* II, tab. 1.; d'Agincourt, *Sculpt.* pl. XI), representing reliefs from one of these columns, and a fragment of relief in the museum at Constantinople is published, which appears to be a part of the spiral relief of the column of Arcadius.

ITALY.

PREHISTORIC AND CLASSIC ANTIQUITIES.

NEW LAW REGULATING ANTIQUITIES AND WORKS OF ART.—The new law affecting the custody and sale of objects of artistic or historic interest in Italy which has been submitted to the Chamber of Deputies is a stringent measure. It orders all such objects to be catalogued, forbids their removal without the permission of the Minister of Instruction, and directs their custodians to inform the Minister of any repairs that may be necessary. Special provisions are made for sale within the kingdom, expropriation, etc. The exportation of such articles can be effected only with the consent of the Ministry, and on payment of an export duty of 15 per cent., the duty being calculated on the value declared by the exporter, or, in case of contest, on the valuation by experts, chosen, one by the State and one by the owner, with appeal to a third nominated by the two, and when this fails, to the President of the local tribunal. The State will have power to acquire any desired object at the price declared by the owner, on declaring within thirty

days its intention to acquire, the purchase to be effected within three months from the date of the declaration, except in the case where the State may momentarily not be in a condition to buy, when the Minister may suspend the completion of the purchase for five years, if the appropriation made for the purpose will suffice within the term assigned. The law does not apply to works executed within fifty years. The provisions with regard to excavation cover almost every imaginable contingency, giving the State absolute control, with power to acquire treasure-trove at discretion, and imposing heavy penalties for all infringements of the statute.—*Eve. Post*, May 4.

ORPHEUS ON ITALIAN VASES.—In the *Jahrbuch d. k. d. Arch. Inst.* viii (1893), No. 2, p. 104 sq., E. Kuhnert discusses *Nekyia of Lower Italy*. Those vase-paintings in which Orpheus is represented in the lower world exhibit him as an intercessor for the dead. Sometimes the deceased pleads for himself. One series of representations is derived from an Attic original in which Herakles and Kerberos formed the center. Another series shows the difference between the initiated and the uninitiated in the lower world, the Danaides being typical representations of the uninitiated. The connection of these vase-paintings with the Orphic mysteries is shown by their evident relation to the Orphic inscriptions on gold tablets.—*Jour. Hell. St.*, iii. p. 112, 114; Kaibel, *Inscr. gr. Siciliae et Italiae*, 638, 642.

TRIUMPHAL ARCHES.—Heinrich Wölfflin writes of the ancient triumphal arches in Italy in the *Repertorium für Kunstwissenschaft*, 1893, p. 11, sq. The purpose of the article is to point out the parallelism between Roman and renaissance architecture. The arches of the two epochs afford the best opportunity for comparison. Roman arches in Italy are described, and the progress is shown from the arch at Aosta (25 B. C.) through the arch of the Gavii formerly at Verona, the arch of Titus, the arch at Beneventum, the arch of Trajan at Ancona, and the arch of Marcus Aurelius formerly in Rome, to the arch of Septimius Severus. As in the renaissance, three periods are seen; first a time of preparation, of early art, a second or classical period, and finally a period in which the feeling for form is dulled and weakened, corresponding to the baroque style of the seventeenth century. The article is illustrated with four small cuts.

ALSENO.—EXCAVATIONS AT THE TERRAMARA.—Sig. Scotti continued in 1893 his excavations begun in 1892 at this terramara. The earlier excavations (*Not. d. Scavi*, 1892, p. 337: *Bull. di Paletn. It.* xviii, p. 243) had determined the limits of the terramara. It is now certain that, though it belongs to the class of hill *terramare* it has all the characteristics of those of the plain; for it is quadrilateral in shape, is surrounded by a

ditch which encircles the dyke and has on the interior the palafitta, or row of piles stuck close together in the ground as a defense. The last excavations were directed mainly so as to cut through, transversely, the south side and observe clearly the archaeological stratum that had formed between the piles, composed as usual of charcoal, ashes, human and vegetable remains, and industrial products in bronze, horn and terracotta. On the left of it was the dyke which descends gently to the south on the inner side of the ditch, while on the north it leans, with a vertical front, against a line of darker earth, a certain sign of the wooden structure so well known since Prof. Pigorini wrote of it in 1883 (*Terramara situata in Custione dei Marchesi*, p. 25). The archaeological stratum is divided horizontally, throughout its extent by a band of carbonized wood which is a sure sign of a first and earlier level on which the cabins were placed. The level was raised and a new row of piles erected when the refuse had accumulated to the point of obstruction, and traces still remain of the former pales and their cross-pieces. A large number of objects were found, all typical of the bronze age. There was a great quantity of rude terracottas usually badly cooked and not turned, decorated with cords in relief, pushed down with the fingers, and with handles common to the terramare. These excavations are further proof of the uniform character of the terramare wherever they are found.—*Not. d. Scavi*, 1893, pp. 232-233.

ALBACINA=TUFICUM (UMBRIA).—The *Scavi* (1893, pp. 134, sq.), chronicles the discovery of ruins at Albacina belonging to the Roman city of Tuficum. The exact site of the discovery is about two kil. from Albacina, and there had been found here in the past a number of antiquities—sculptures, architectural remains, and especially inscriptions. The architectural remains recently found show that in Roman times there existed here public buildings of considerable size and beauty, probably encircling the ancient forum. This conjecture is confirmed by the discovery of inscriptions, nearly all honorary, which must have been placed on the bases of statues. This forum was surrounded by porticoes, which were still seen early in the century by Ambrosioli, who wrote *Cenni Storici sopra Tufico*, in which he also speaks of the honorary statues and their inscriptions. The honorary inscriptions that have now come to light are all fragmentary. The one exception is one to C. Fulvius Plautianus, intimate friend and relative of Septimius Severus, whose daughter Plautilla married Caracalla, bringing him an enormous dot, sufficient, says Dio Cassius, for fifty queens. The names of both father and daughter were afterwards officially erased from all inscriptions: hence the importance of this inscription, which preserves both names in full. It reads:

C · FVLVIO C · F | QVIR · PLAVTIANO | PR · PR · C · V · COS · II · AD |
 SVMPTO INIL P PATR | FAMIL · NECESSARIO | DD · NN · AVGG ·
 SEVE | RI · ET · ANTONINI · DI | CATO · NVMINI · AEOR (sic) | PATRI ·
 PLAVTILLAE | AVG · OMNIVM PRAE | CEDENTIVM · PRAEF | EXCEL ·
 LENTISSIMO | D D P

The date of the inscription is 203 A. D., and the monument was erected by the Decurions of Tuficum at the public expense. It is here shown that Plautianus belonged to the tribe Quirina, and that his name is Caius and not Publius, as conjectured by Wilmans, or Lucius, as conjectured by Morelli.

ASCOLI.—GREEK BRONZES.—Mr. Geoffroy, director of the *École Française* at Rome, writes that Prof. Barnabei has shown to the *Accademia dei Lincei* two fragments of the handles of a bronze vase, representing a bull and a lioness, of extremely beautiful archaic work and with an admirable patina. The fragments of the vase, together with those of the tripod which held it, were discovered near Ascoli, not far from the Adriatic. Mr. Geoffroy announces that there have often been found in this region beautiful fragments of bronze vases, Greek works undoubtedly, which the Tarentines imported in exchange for the wool that they needed in their dyeing industry. The director of the *École de Rome* also writes that the Sultan has made a present to the Pope of the marble bearing the inscription of Albericus, bishop of Phrygia, at the beginning of the III century. This Greek inscription has been known for a long time; it is of great value and of high importance for Christian archaeology.—*Chronique des Arts*, 1893, No. 12.

BERTARINA.—PREHISTORIC STATION.—At Vecchiazzano, near Forlì, excavations are taking place in the prehistoric station of Bertarina, where rude pottery and stone weapons have been disinterred.—*Athenæum*, Aug. 12.

BOLOGNA.—ITALIC TOMBS AND STELE OUTSIDE PORTA S. ISAIA.—In the property of Count Grabinski a half kilometre outside Porta S. Isaia, some Italic interments of the Villanova type were accidentally found. Each consisted of a simple dolium, which in some cases contained small vases and a few fibulae. At a greater depth of four metres was a tomb containing fictile vases with deep geometric ornaments and bronzes. Near it was found a sandstone stele in the form of a rectangular cippus surmounted by an elliptical disk on which a rosette is carved. This stele is similar to one found at S. Giovanni in Persiceto. Still another stele was found at S. Giovanni in Persiceto, in the shape of a xoanon whose face looks more like a mask than a human face.

[These two steles appear to me of such unusual interest that I take the liberty of inserting a few remarks. The elliptical disk encloses sun-rays rather than a rosette. The rays which are pointed at the end radiate from a central circle of irregular shape which is so damaged that it is not possible to say whether or no it enclosed a human head, like a Hathor head. To my mind this stele is a clear indication of sun-worship. The signs of Egyptian influence are still more visible in the so-called *xoanon* stele. It is clearly the reproduction of a mummy. The face is the reproduction of a carved mask, the head is swathed and has a band about the forehead—a second band above the shoulders and a third at the middle. We have here what corresponds to the Phœnician anthropoid sarcophagi. In both steles the influence of Egypt seems to be indirect, perhaps through the Phœnicians. In the third stele, with the sun-disk resting on its summit, the sun idea has apparently vanished. At least, its decoration is a series of labyrinthine broken zig-zags.—A. L. FROTHINGHAM, JR.]

Two other steles found at Bologna are here published for the first time and differ from those just described in having human and animal figures of the rudest Italic style, together with a rather tasteless decoration of rosettes and lotus volutes.

ITALIC TOMBS FOUND IN THE ROMAGNOLI FIELD.—Regular excavations on this property resulted in the discovery of 24 Italic tombs in an area of 14 by 6 metres. Of these twenty were for cremation and four for inhumation. Tomb No. 10 was one of the richest and a brief note of its contents will show sufficiently the kind of objects found. Its site was indicated by a formless piece of limestone at a depth of 2.20 met.; a second piece appeared at a depth of 1.80 met. below the first; while a third was found at a still greater depth. About one metre below this lowest stone there appeared a stratum of *ciottoli* over the areas of the tomb, two metres square. The original wooden box enclosing the more precious objects had left merely a carbonic residuum behind; within its original area was the terracotta ossuary containing the burned bones; the remains of two double-bellied fibulae, of four double lozanged fibulae, &c. On removing the ossuary there appeared two horse-bits of bronze with ends pierced *à jour* and decorated in zig-zag, and also some thirty pieces of thin bronze-plate which originally formed part of the horse's head-piece. There were also two bronze knives; two iron knives; a sphere of glass paste; a finely preserved double-lozange fibula; an interesting symbolic hatchet also in perfect preservation; two bronze cistae decorated with bands and raised dots. Outside the limits of the box were: a bronze *presentorio*; a bronze situla (fragment); a circular basin with two semi-cir-

cular handles, decorated in the centre with a large umbilicus and resting on a tripod with incurved legs between which hang imitation acorns. Among the vases one only was well preserved—an askos of red earth of a shape new to Bologna but similar to one found in the archaic necropolis of Vetulonia.—BRIZIO in *Not. d. Scavi*, 1893, pp. 177-190; cf. *Athen.*, Aug. 5.

BOLSENA (NEAR).—DISCOVERY OF AN IMPORTANT EARLY ETRUSCAN NECROPOLIS.—About thirty-five years ago some discoveries were made a few kilometers from Bolsena, and described by Golini, who commenced them, and by Brunn. The tombs then found evidently formed part of the necropolis of the ancient Volsinii (see *Bullet. Inst.*, 1857, and 1858). From the first tomb found by Sig. Golini came the magnificent objects in gold and bronze of the third century B. C. now in the *Museo Etrusco Gregoriano* at the Vatican. Lately some further discoveries have been made at Bavano, about two kilometers from Bolsena, which should be connected with the earliest finds. The tombs found are on the Guidotti property, and their contents belong to a considerably earlier date than the Golini tomb. The approach of the first tomb was indicated by the unearthing of numerous cippi of *nenfro* in the shape of shafts ending in one or more cones. The tomb measured about 6m. by 4m. entirely excavated on a very friable red rock. Each of the long sides was occupied by a bench leaving only a narrow passage between them. On these benches were placed the sepulchral objects, but irregularly. Among the objects was an oriental bombylios with red and black zones and with running hares (?), and fragments of other vases of early character, of *bucchero* with bands in relief, etc. In a second tomb were found the four feet or *fulera* of a funeral bed of alabaster. These feet are .50m. high and formed of separate pieces of beautiful veined Volterra alabaster, well turned and held together by a strong iron bar. The design of these feet is interesting and with strong and distinct profiles. The wooden framework which they supported appears to have been decorated with thin strips of bone put on in *intarsia* style, many pieces of which were found in the earth. The funereal bed is similar in character to that in bone found at Norcia and published by Pasqui in the *Monumenti Antichi*, I, p. 232, pl. 1.—*Not. d. Scavi.*, 1893, pp. 64-68.

CANOSA.—STATUETTES AND FIGURINES.—Sig. Jatta publishes in the *Not. d. Scavi* for 1893 (pp. 85-87), the description of some statuettes and figurines in relief which belonged to the *askoi* with white or polychromatic *intonaco*, so frequently found in the tombs of Canosa. These belong to a comparatively late date and are badly restored. There are: Two seated youths; two standing youths—on cylindrical bases; a seated Artemis; four Victories; a youth leaning on a colon-

nette; three women, standing; a horse; a protoma of Medusa; a *prefericulum*; a ram's head; two centaurs in relief.

CASTELNUOVO.—At the lake settlement of Castelnuovo Fogliani, in the province of Piacenza, the usual constructions characteristic of an Italian *terramara* have been found, with fragments of rude pottery, bronze knives, ends of stag's horns, earthenware spindle-whorls, and other objects, all typical of the age of bronze.—*Athen.*, Aug. 12.

CHIUSI.—BRONZE WOLF.—There has lately been found at Chiusi, the ancient Clusium, a bronze head of a wolf, closely resembling in technique that of the celebrated Wolf of the Capitol. As the former is manifestly of ancient Etruscan workmanship, it supplies a very strong argument against those who have maintained that the latter is of mediæval origin. On the other hand, the recent examination of the Lion of St. Mark for purposes of repair has conclusively demonstrated that it was made in the XII or XIII century; it is composed of little pieces of bronze fastened on to a framework of iron—a mode of manufacture far removed from that of the Etruscan. For the Venetian Lion see VENICE.—*Acad.*, Feb. 11.

CONCORDIA SAGITTARIA.—NEW INSCRIPTIONS.—An inscription supposed to have been used in the foundation walls of a church at Vado and given in *C. I. L.*, V. under No. 1920 has been re-discovered and is to be corrected to read C · CALVENTIVS | C · F · CLA · FAVSTVS | SIBI · ET · SVEIS. The spelling *sueis* places the inscription in the first century of the empire. Another inscription reads: *Fl. Fortunato Augustali | ex-n. milit. Jovianorum | Vetius Serenianus hospes et | hæres eius iuxta testamentum arcam condignam ex proprio | eius comparavit.* The name of the militia of the *Joviani* is new. The date is late, probably about the time of Constantine.—*Not. d. Scavi*, 1893, pp. 219–223.

CORATO (APULIA).—REPUBLICAN COINS.—During last January near Corato some peasants found a small treasure of Roman coins consisting of fifty denarii belonging to twenty-six families. The most recent were coined between 723 and 727 u. c. = 31–27 B. c., and the treasure may have been hidden shortly after the battle of Actium. Seven only are duplicates and many are of unusual interest. The families represented are: Acilia, Antonia, Aquilia, Calidia, Cipia, Claudia, Considia, Cornelia, Julia, Manlia, Marcia, Maria, Mucea, Neria, Ogulnia, Papia, Pinaria, Plautia, Poblizia, Rubria, Rutilia, Sanfeia, Servilia, Titia, Tituria, Vibia.—*Not. d. Scavi*, 1893, p. 242.

CORNETO-TARQUINII.—On resuming excavations at Tarquinii, a discovery was made in the necropolis, near the tomb called *del Barone*, of two tombs for cremation, in one of which the ossuary consisted of a Greek painted vase, now broken into fragments. In two other

chambered tombs, the vaults of which were broken in, was found some painted pottery of Etrusco-Campanian art. Near the well-known *tomba delle bighe* several other tombs of the same kind were unearthed, and, although they had already been rifled, the fragments of two Attic vases were found, which had escaped, perhaps, the notice of the depredators. From another tomb were recovered various objects of personal ornament, consisting chiefly of *fibulæ*, earrings, and beads for necklaces of the usual type.—*Athen.*, Aug. 5.

In the *Jahrbuch d. k. d. Arch. Inst.* (1893, p. 180, sq.), E. Pernice, in an article entitled *Σίφων* (three cuts), interprets two scenes on a black-figured amphora in the Museo Tarquiniese at Corneto. A wine or oil seller is dealing with a customer. Two small staves in the jars are explained as siphons. A similar siphon is seen in a vase-painting (here published) in the Museo Civico in Girgenti.

A MUSEUM.—The town authorities have bought the large and beautiful Palazzo Vitelleschi in order to turn it into an Etruscan museum. The palace, which has been undergoing repairs, is one of the finest examples of late Gothic civil architecture in this part of Italy.

ESTE.—MOSAIC PAVEMENT.—A piece of Roman mosaic pavement has been found on the Romaro property. It is mainly of black and white cubes (with a few red cubes) in geometrical forms, giving the effect of a rug. The only two unusual designs are a large star of laurel leaves and a series of linear decorations interspersed with arches, the point of junction of the lines being decorated with lances.—*Not. d. Scavi*, 1893, pp. 223-226.

FREGOSE (VENETIA).—ROMAN EPITAPHS AND BURIAL-GROUND.—A group of Roman tombs found near Fregose, in the province of Este, appears to have been a private burial-ground belonging to the family of the Blattii. The principal inscription found is that of a centurion: *L. Blattius l. f. Rom(ilia) Vetus cent(urio) leg(ionis) i(v) Ma[c]edon(ice) adle[ct](us)[de]curio*. This cippus is decorated with the military emblems of his rank and honors—phalerum, armillæ, vitis, parazonium, rectangular shield, leg-piece. The inscriptions show that he took part in the administration of the colony. There was also found an inscription of a *Blattia Facilis*, probably a freed-woman.—*Not. d. Scavi*, 1893, pp. 57-60.

FLORENCE.—AN ITALIC TOMB.—The most important of the discoveries made on the occasion of the recent disturbances of the soil in the centre of Florence is that of an Italic shaft-tomb, of which an account was given at the time in the *Athenæum*. It was found to contain a vase of black earthenware in the form of a double cone, which is the characteristic type of the Villanova *ossuarii*. Inside the burial jar

were a *fibula* with a bent bow, all in fragments, and the remains of two other *fibulae*, the bow ornamented with a small ball or button of amber. This circumstance, together with the absence of the curved razor which generally denotes the interment of men, proves that it was a woman's tomb. Prof. Milani is of opinion that this burial, discovered in a stratum below that of the constructions of Roman times, represented by the mosaic pavements found at the same time and place, is but a remnant of a whole necropolis of the prehistoric population of the locality where now stands Florence. He is further confirmed in this view by a consideration of a square block of sandstone, bearing on two sides in relief a griffon and a lion. These sculptures (found recently near the same spot as the tomb, and hitherto supposed to be mediæval) Milani has now proved to be Etruscan, similar reliefs of a lion rampant and of some deity being found on the other two sides (which were at first hidden from view by a modern building), so that it can be proved the stone was a funereal *stèle*, like that edited by Inghirami, and belonging to the sixth or fifth century B. C. A statuette of bronze, also found near by—representing an idol like those often placed on the top of candelabra, and such as have been found in chamber tombs of the same period—strengthens the probability of Prof. Milani's theory.—HALBERRER in *Athenæum*, Aug. 5.

MANERBA (VENETIA).—A ROMAN NECROPOLIS.—At Manerba, a village on Lake Garda, whose name is derived from a temple of Minerva, Sig. Marchesini has carried on excavations on a recently discovered Roman necropolis. The most interesting objects were some fine red and black Aretine vases in fragments. Many coins came to light dating from Augustus to Constantine II.—*Not. d. Scavi*, 1893, pp. 226-232.

MILAN.—ACCESSIONS TO THE MUSEUM.—The King of Italy has lately given to the Archæological Museum of Milan a large number of antique objects which belonged to the crown. Altars, cippi and Roman capitals, sepulchral marbles and other decorative stones of the Middle Ages and Renaissance, form the contents of the royal gift.—*Chronique des Arts*, 1893, No. 14.

ORVIETO.—One of the tombs recently uncovered in the *contrada* called Cannicella varies from the ordinary tombs of both the northern and the southern necropolis. It was built, as usual, with large blocks of well-worked tufa, laid without cement, and had a door to the east 0.62 by 1.25 m., and its height was 2.10 m. But wherein it varies is that the tufa blocks are laid so as to form two inclined planes, which meet at the summit and act as a vault, there being three courses of tufa on each side. A second tomb found near this was of the usual type, of very archaic character, and had never been violated. It contained

two tufa benches, on one of which was the skeleton of the defunct, and on the other the most precious of the objects belonging to him.—*Not. d. Scavi*, 1893, pp. 63–64.

ROME.—LANCIANI'S TOPOGRAPHICAL MAP.—Prof. Rodolfo Lanciani has been engaged, since the year 1867, in preparing a plan of ancient Rome, based upon the most recent archæological discoveries. Its completion has been delayed from time to time as fresh materials were continually being brought to light; but the collapse of building speculation now permits the publication to be commenced, under the auspices of the Royal *Accademia dei Lincei*. The map will be in forty-six sheets, on the scale of 1 to 1000; and it is intended that not less than six sheets shall appear annually. In the order of publication, priority will be given to those sheets which comprise districts already fully excavated, where there is little probability of any fresh discoveries. The method adopted is to show, by five colors: (1) the streets of the modern city; (2) the monuments and ruins of the regal and republican periods; (3) those of imperial times; (4) underground remains, quarries, catacombs, Mithraic grottoes, &c.; and (5) springs, aqueducts, drains, and the bed of the Tiber. There will be included those monuments now destroyed, of which accurate information is recorded; and the sites of famous works of art and inscriptions. The altitudes of the ancient and modern city are also to be marked in different colors. The publication is undertaken by the house of Ulrico Hoepli, of Milan, and the price of the entire work is \$35, or \$5 a year, less a discount of ten per cent. on payment in advance. The first two parts have been already issued. The author proposes to accompany the plan with an explanatory book, which will appear under the title "*Storia degli Scavi di Roma*." The book and plan will be indispensable to every student of ancient Rome, and the price is so extremely moderate as to put it within every student's reach.

CASTS OF GREEK SCULPTURE.—A new collection of casts of ancient sculpture has now been established in Rome, on the ground floor of Casa Rabbi, in the street leading to the Porta San Paolo. It consists at present of such objects as illustrate the transition from the archaic period of Greek art down to the period of Pheidias, Myron, and Polykleitos. The chief casts already exhibited comprise some of the metopes and sculptures of the Temple of Zeus at Olympia; a portion of the frieze and some of the chief figures of the tympana of the Parthenon; the Athena of the Varvakeion and the other Athena, called "of Lenormant"; three reliefs of Northern Greece; the Marsyas of Myron; the Amazon of Polykleitos of the Berlin Museum; the Doryphoros of Naples, &c. We owe the initiative of this collection, which is

connected with the Roman University, to the Professor of Archæology, Dr. Emmanuel Loewy, whose suggestion has been carried into effect by the present Minister of Public Instruction, Signor Martini.—*Athen.* July 29.

COINS OF LUCIUS VERUS. — In digging the foundations of the new Benedictine Abbey on the Aventine, various antiquities have been found from time to time, including some fragmentary inscriptions. A hundred gold imperial coins were found by some of the workmen in a cooking vessel. They consist of well-preserved specimens of the coins struck by Lucius Verus for the conquest of Armenia in 164, of the weight of about a sovereign each. The value of each is about \$100.—*Athen.*, Apr. 8.

BRITISH AND AMERICAN SCHOOL. — At a meeting recently held at the British Embassy in Rome, a proposal was approved for extending "the scope of the British and American Archæological Society by providing a building for it, as well as for a limited number of students." The Council of the Society, under the presidency of Lord Vivian, subsequently appointed a committee to carry out the above project. Individuals and public bodies interested in archæology in England and America are invited to assist. The secretary of the Society is Dr. E. J. Miles, 20, Via San Basilio, Rome.—*Athen.*, May 6.

MONUMENT OF L. CORNELIUS PUSIO. — Sig. P. Bienkowsky has published in the Roman *Mittheilungen* of the German School an article on a colossal head of a bronze statue which he regards as the portrait of L. Cornelius Pusio because it is said to have been found at the beginning of 1892 with a dedicatory inscription to the above-mentioned Pusio on the occasion of some work at the Campanari palace in via Nazionale, when it passed into the hands of Sig. Borghi, a dealer in Piazza Barberini. The inscription reads :

L · CORNELIO · L · F
GAL · PVSIONI
III^{IIII} R · VIAR · CVRANDAR
TR · MIL · LEG · XIII · GEMINAE
QVAESTORI · TR · PL · PR · LEGAT
AVGVSTI · LEG · XVI
M · VIBRIVS · MARCELLVS
> · LEG · XVI

This inscription is on a bronze plate, is in fine characters of the early empire, enclosed in a rich cornice. Sig. Bienkowsky attributes this honorary monument to the time of Tiberius or Caligula. Nothing has been found either regarding this Pusio or the dedicator Marcellus. I would remark, however, that : in the first place, both head

and inscription were found before 1892 because I saw them in Borghi's house in 1890: in the second place, it seemed certain not only to myself but to a well-known German archæologist that there was no possible connection between the bronze head and the inscription: the characters of the inscription are of the early empire; the crude quality of the head would lead one to attribute it to the third rather than the first century of the empire. It is, therefore, no portrait of Pusio.—A. L. FROTHINGHAM, JR.

VIA LATINA.—Fragments of a large sepulchral cippus of great beauty and magnificence in its decoration have been found in the piece of property of Prince Giulio Torlonia called Roma vecchia, seven miles from the city. An inscription in beautiful letters of about the time of Claudius fits into the fastigium. It records a distinguished cursus honorum, but is unfortunately mutilated; it begins: T · STATILIO
| OPTATO · P | PROC · AVG · A | FLAMINI · C | &c. He was flamen; six times *procurator*; *præfect*; twice tribune of legion; prefect of cohort. The sepulchral chamber was also found.—*Not. d. Scavi*, 1893, pp. 196–99.

SCULPTURE ON THE VIA ARDEATINA.—From two brick tombs found at about five kilom. from the city there were extracted a number of marbles among which were the following: (1) A male statue, of a youth, 1.90 met. high, of very good workmanship; (2) a second statue, similar to the above, but smaller and ruder; (3) a statue of a young woman in tunic and pallium, who rests her right elbow on her left hand; (4–5) two funerary inscribed cippi.—*Not. d. Scavi*, 1893, p. 195.

RUVO (APULIA).—DISCOVERY OF PAINTED VASES.—The inspector, Sig. Jatta, describes in the *Not. d. Scavi*, 1893, pp. 73–85, a series of vases found near Ruvo in fragments and put together by Canon Luigi Elicio. We give here a summary.

1. Large amphora, height 80 m., periphery 1.35 m. Style of medium excellence, rather careless but of good Apulian period. The subject represented is of considerable interest and difficult interpretation. It contains nine figures divided in two rows, five in the upper and four in the lower. Above, on the right, is a seated woman with long chiton and himation wound about her limbs: in her left she holds a sword still in its scabbard. Another woman stands with her left foot resting on an overturned white kalpis and her knee bent. She wears long hunting leggings, a short chiton, and a chlamys hangs from her arms. In each hand she carries a small lighted torch; her expression is somewhat severe but not terrifying. Behind her is a large metal patera. With his back turned to this second woman a king is seated, in the centre of the scene. His left hand rests upon a long sceptre and his right

is raised as he converses with a warrior who stands before him, bearded, holding a long lance, behind whom stands a youth who leans upon his right arm. The lower scene is composed of four young warriors conversing two by two, one in each group being seated and the other standing. On the other and less important side of the vase is one of the usual sepulchral monuments in the form of a small Ionic temple in which stands a young nude warrior, while at its right, above, is a seated nude youth, and corresponding to him on the left is a beautiful woman standing. In the field above is a seated youth.

Sig. Jatta interprets the principal scene as a representation of the rare myth of Kanakê, daughter of Aiolos, whose story is partly known through the few fragments of Euripides' tragedy of that name. According to Ausonius (*Cupid. cruci aff.* 37) only three women were represented with a sword—Tisbe, Dido and Kanakê. Aiolos has sent to his daughter Kanakê a sword with which to kill herself, and we see her holding it in the figure of the first woman on the vase. King Aiolos is seated in the centre and his son Makareus is seeking to dissuade him from his purpose of marrying his sons and daughters outside of the family. The other and younger sons have made Makareus their mouth-piece and are represented in the four figures below. It is more difficult to explain the female with the torches and the youth above with the caduceus stick. The latter is probably Hermes, in his character of *psychopompos*, in view of the approaching death of Makareus, who kills himself when, after persuading his father, he rushes to announce the good news to Kanakê and, finding her dead, commits suicide with the same sword. In the woman Sig. Jatta proposes to see Artemis, either as *Hekataia*, in allusion to the approaching death of Kanakê, or as *Eileithya* or *Locheia* in allusion to the unfortunate cause of the catastrophe, the new-born child.

2. Large vase in the unusual form of a candelabrum (cf. Heydemann, *Vasensaml. zu Neapel*, pl. II, 90) which is valuable not only on account of its shape but for the exquisite arabesques and other ornaments on the neck. The principal subject on the body of the vase is that of a young woman seated in a tempietto and playing with a white goose, representing the defunct enjoying Elysian delights while her friends are represented as bringing sepulchral offerings. On the other side is Eros and a young woman.

3. A small vase of the kind called *olpe astomos*. The main scene, of five figures, represents the triumph of a female harpist, and includes both Nike and Eros.

4-5. Two oinochoë. On the first a nude youth is seated holding in his left a patera and in his right a reversed extinguished torch.

Opposite him is a girl holding a tamborine in her right and extending a crown with her left. On the second there are also two figures, a nude youth following a woman who carries in her right an open box and a crown of myrtle and in her left a bunch of white grapes, and who is walking hurriedly and turns back her head towards the youth.

Other vases are of minor importance: an aryballos; a charming small vase of unmentioned form; a kantharos. A terracotta relief of a crouching woman, similar to the famous Venus coming out of the bath in the Pio-Clementino Museum, probably represents a *hetaira* after the bath, and is quite interesting.

In the fields of Vincenzo Elicio a Greek tomb was found containing a number of ordinary vases, but among them one of unusual interest. It is an aryballos, with black varnish, with channellings painted red and black in the neck, and palmettes and arabesques occupying all the back. The technique of this vase is very uncommon, for the composition on the front is not only polychromatic but in low relief. The figures were attached to the body of the vase while the clay was still soft, when the vase was exposed to heat and then painted in red and black, the figures in relief were treated in the same way. In the Jatta collection there is but a single vase of this technique in which the polychromy is not as well preserved as in this case, but the figures were touched up with greater ease and the outlines made more distinct. The composition consists of three figures, a horse and a wild animal, and it is a hunting scene in ordinary life. A youth is raising with both hands an ax to bring it down on a wild beast—a bear (?)—who is attacking a man on horseback followed by another man on foot. The man on horseback wears a Phrygian cap, and a similar cap is worn by the footman who follows him. The scene seems, therefore, to represent some Persians or other barbarians, hunting the bear—a sport rarely indulged in by Greeks.

VERONA.—A young archæologist, S. Ricci, contributes to the *Notizie degli Scavi*, Jan., 1893, a long report on the results of recent excavations at Verona, especially in the bed of the Adige. This report is in continuation of others already noticed in the JOURNAL (vol. VI, p. 588). Many inscriptions were found, as well as works of art in silver, bronze and marble, domestic utensils, and silver and bronze coins of different periods. The finest inscriptions, in characters of the first and second centuries, came to light in the pier of a bridge under the bed of the old canal of Acqua Morta. Among the inscriptions of the Republican period are three of the *Clodii*, three of the *Valerii*, two of the *Fabii*, two of the *Lactorii*, etc. Another and a better copy was found of the inscription commemorating the testamentary gift by Gavia Maxima,

daughter of Quintus Maximus, of six hundred thousand sextercii for the construction and enlargement of an aqueduct. An important inscription records the name of an architect: M · CASSIO · C · F · | POB · DENTICVLO | III VIR · ARCHITECT | TRIB · MILITVM.

M. Cassius Denticulus is the second architect, and the only one of free-born condition of the Roman period whose name occurs in the Veronese inscriptions. The other is L. Vitruvius L. L. Cerdo, builder of the Arch of the Gavii. A cippus found at the Ponte Pietra bears an inscription to Serapis: SARAPI | O · M | MARIVS | MARO | D · D. This adds to the probability of the existence at Verona of a temple to Serapis. The inscription was found not far from the remains of a temple discovered near Castel S. Pietro in 1851. Three of its capitals are decorated with heads of bulls, pointing to an oriental divinity, probably Serapis.

A later report gives the following additional information: Amongst last year's discoveries in the riparian works at Verona I must mention a small altar with a dedicatory inscription to the god Serapis, with the title of *Optimus Maximus*, erected by a certain Marius Maro. It belonged probably to a temple of Jupiter Serapis, which may have been not far from the Ponte Pietra, where the stone was discovered upon the raised ground towards the Castel S. Pietro. Some years ago on this site the foundation of a large building, which may be a temple, were found, with bits of cornices and capitals of pillars. Here also was found of old the statue of Jupiter Serapis published by Maffei. Other new Roman inscriptions, whole and fragmentary, have also been added to the town collection, and an illustrative report upon these new acquisitions will be published by Dr. Ricci. One of these inscriptions refers to a member of the Gens Octavia, a family already known at Verona by other monuments of the city. Another belongs to the Gens Tullia and is of the last century of the republic. Amongst the numerous coins dug up are a half *as* of the republic, and bronze coins of Augustus, Tiberius, Vespasian, Titus, Hadrian, Constantine, &c.—F. HALBHERR in *Athenæum*, June 17.

VETULONIA.—THE CITY.—We complete by the following note the information available in regard to the remains of the earliest of the two sites of the ancient city of Vetulonia. Dr. Halbherr writes: "Also on the site of the more ancient Vetulonia, where hitherto Cav. Falchi had turned his attention almost exclusively to the necropolis, on this occasion the opportunity was taken of making fresh excavations. Within the circuit of the city a considerable length of roadway was unearthed, paved with the large blocks which characterize Roman roads, both urban and suburban. On one side of this road

were discovered remains of some private dwellings, the walls of which were built without mortar of large stones, which at first sight recall the Cyclopean constructions. The blocks, however, are rough hewn, and are arranged with a certain symmetry, reminding us of a rudimentary *opus isodomum*. These houses show traces of having been destroyed by fire, but from the date of the Etruscan and Roman coins found within the ruins, it would appear that they were inhabited up to the first century B. C. As to the time of their construction, we may argue that it does not go back beyond the fourth or fifth century B. C. Maybe they are amongst the latest buildings erected by the few Etruscans who remained in the ancient settlement after the foundation of the new city near the sea. Moreover, from the *ensemble* of the various numismatic discoveries made, we may conclude that the Vetulonian sextant was still current, even after the introduction of the Roman uncial *as*.—*Athenæum*, Aug. 5.

CHRISTIAN AND RENAISSANCE ART.

A NEW CATALOGUE OF GREEK MSS. IN ITALY.—The wonderful abundance of MSS. material, ancient and modern, that Italy possesses has hitherto been very inadequately catalogued. The great XVIII century works of Bandini, Zanetti, Pasini have had few successors. Excessive decentralization, with consequent subdivision of funds, and, as regards Greek at least, incapacity, have been reasons why a large proportion of the lists that have been made are the work of foreigners. (Even in the last number of the *Centralblatt für Bibliothekswesen* we find an elaborate account of the MSS. of the Missione Urbana at Genoa by Herr A. Eberhard.) In recent years, moreover, changes of government and the suppression of religious houses have greatly increased the stores of almost every provincial library.

The enterprise, therefore, begun by Signor Emilio Martini, prefect of the Brera Library at Milan, deserves the applause and support of every one who desires to find these most varied treasures accessible. In his *Catalogo di Manoscritti greci esistenti nelle biblioteche Italiane*, of which the first fascicolo is lately published by Hoepli of Milan, Signor Martini expresses his intention of putting out lists of all Greek collections in Italy that do not already possess printed catalogues, and of cataloguing additions that have been made to large libraries since the date of their printed catalogue. Such a task can be carried through only by a native of the country, and it must be a satisfaction to all well-wishers of Italian learning that an Italian librarian has undertaken it.

This first instalment contains two important minor libraries—Palermo and Parma—and smaller collections at Pavia, and at the Brera and the Chapter at Milan. Most of the MSS., naturally, are theological; at Parma, however, there are some copies of the classics, including an Iliad (collated by the reviewer), Apollonius Rhodius, Euripides, Proklus' Hymns, Strabo, Thukydides. In all of them the student of the history of libraries and religious houses will find abundant fruit, and at Palermo the palaeographer may study a number of specimens of late Greek writing.

Signor Martini's method is painstaking and full: it may even be questioned whether his descriptions are not sometimes over-minute, whether the cataloguer does not usurp the office of the editor. Theologians, however, cannot but be grateful for the care with which the contents of every MS. are indexed.

We may expect before long from Signor Martini catalogues of the libraries of Brescia, Catania, Ferrara, Udine, and of the Vallicelliana at Rome. Let us hope that he will set his hand also to the accretions of the Laurenziana and the Marciana, and to the Ambrosiana in his own city. An equally important but possibly more difficult task is the cataloguing of Italian private libraries.—T. W. A. in *Academy*, June 10.

BELISARIUS.—*Belisarius in Tradition and Art* is the title of an article by F. Sauerhering in the *Repertorium für Kunstwissenschaft*, 1898, p. 289 sq. The story that Belisarius was in his old age imprisoned, blinded, and then sent forth to beg his bread is not true, but has nevertheless inspired poets and painters. In 1767 Marmontel published a novel "Bélisaire," Edward v. Schenk's tragedy "Belisar" was first performed in Munich in 1826, and in 1836 Donizetti brought out his opera "Belisario." The first painting of the aged Belisarius was by Salvator Rosa, now in the Galleria Doria in Rome. The next was by Dietrich, nearly one hundred years later, in the Dresden gallery. The French school of the eighteenth century furnished several pictures of Belisarius as a beggar. Louis David's large picture, now in Lille, was exhibited in 1781, and a smaller one by Fabre and Girodet, retouched and signed by David, in 1784. Fr. Rehberg and Peter Krafft also painted the same subject. Gérard's Belisarius (1795) is more romantic and less classic than those of the three last mentioned artists. In 1798 Jacques Antoine Vallin painted a Belisarius. Here the old man's companion is his daughter, not as in the preceding, a boy (or his daughter disguised as a boy). In 1850 Karl Becker and in 1881 August Frind painted this subject. The subject has not yet been treated in sculpture.

RESTORATION OF MONUMENTS.—The restoration of the Cenacolo d'Ognissanti at Florence, painted in fresco by Domenico Ghirlandajo, is nearly finished, and attention is now being turned to plans for the restoration of the Campanili of the Badia and of the Ognissanti, as well as the carved wooden ceiling of the church of the Badia.—*Athen.*, March 18.

FLORENCE.—In pulling down a portion of the old Ghetto at Florence some fifteenth century decorative fresco work has been found on the walls of a house belonging to the Teri family. It represents tapestries or hangings fastened to a rod by means of small rings, and running all round the walls of the rooms. The stuff of one of these hangings is ornamented with a meander pattern of Oriental character, while that of another has, woven with the design, a number of shields and badges of ancient families, perhaps related to the owner of the palace. Those portions that could not be detached from the walls have been carefully copied, Florentine house decorations of that early date being rare.—*Athen.*, Jan. 14.

THE MEDICI COLLECTIONS.—M. Müntz communicates to the *Acad. des Inscri.*, June 2, 1893, portions of a work on the collections of antiquities formed by the Medici in the xvi century. From documents taken from the archives of Florence, he makes known the contents of this museum, which from the reign of Cosmo I contained marbles, bronzes, terracottas, vases and utensils of all sorts. The dates of the discovery of certain celebrated statues have thus been recovered. Müntz attempted to prove that the Venus de Medici did not come from Rome, as is commonly supposed, but was in Tuscany from the xvi century.—*Rev. Arch.*, July-Aug., 1893, p. 112.

CATHEDRAL.—We take the following note from the *Revue de l'Art Chrétien* (1893, No. 2, p. 176). "A descendant of Boniface VIII, the Duke of Sermoneta Caetani, has given to the Commune of Florence the statue of Boniface VIII by Nicolo Pisano. This remarkable work will be placed in the Cathedral." Boniface VIII (1296-1303) was the mediæval pope of whom the most statues are recorded and as he came at the beginning of the revival of Italian sculpture these statues are of exceptional interest. The example mentioned is probably the one recently photographed by Alinari, and cannot, of course, be by Nicolo Pisano.

MILAN.—ADDITIONS TO THE BRERA.—Among the recent acquisitions of the gallery of the Brera are two panels of saints (St. Peter and St. John the Baptist) by Francesco del Cozza, said to be the wings of the picture by that master, No. 597, formerly attributed to Marco Zeppo, which is in the National Gallery. They are apparently in good preservation,

and are admirable examples of the vivid coloration and sharp, precise drawing of Del Cossa. The panels hang in the room devoted to the smaller masterpieces of the gallery.—*Athenæum*, Nov. 11.

PAINTINGS BY LEONARDO.—In pulling down a part of the castle of Milan, some of Leonardo da Vinci's paintings are supposed to have been found, belonging to the time when this great artist worked for Francesco Sforza. A committee has been formed for the preservation of these works.—*Chronique des Arts*, 1893, No. 28.

NOTO.—Prof. Orsi has discovered that the Falconara monument, near Noto, ascribed by Messrs. Freeman and Evans to Sicilian-Greek construction, is, on the contrary, the remains of a Byzantine church.—*Athen.*, Aug. 12.

PISTOIA.—At Pistoia a new collection of objects of art is to be formed in the chapter house of the convent of San Francesco, and will be shortly opened to the public.—*Athen.*, Feb. 18.

ROME.—EARLY BRONZE DOOR OF ST. PETER.—Mr. de Geymüller has presented to the Society of Antiquaries of France the photograph of a drawing belonging to the Berlin Museum. This drawing, executed by a French architect somewhere between the years 1530 and 1550, represents a very ancient bronze gate which appears to have decorated the basilica of St. Peter's at Rome.—*Chronique des Arts*, 1893, No. 14.

VENICE.—LION OF ST. MARK.—The verdict of Italian experts, who were recently employed in repairing the famous Lion of St. Mark at Venice—that the work was originally made in the twelfth century—has not met with universal acceptance. In a letter addressed to the *Académie des Inscriptions*, M. Casati contests it on three grounds, the first being that the bronze of the middle ages generally contains one-fourth or one-fifth of lead, whereas that of the lion is composed of copper with 15 per cent. of tin.—*Acad.*, Mch. 25.

VENICE.—PLAQUETTES IN THE MUSEO CORRER.—Emil Jacobsen describes plaquettes in the Museo Correr at Venice in the *Repertorium für Kunstwissenschaft* (1893, p. 54 sq.). Toward the end of the last century the Venetian nobleman Correr brought together a heterogeneous and valuable collection of works of art, especially works of Venetian origin, which he presented to his native city. The collection was increased after his death, and in 1880 was newly arranged and opened to the public as the Museo Civico e Raccolta Correr, in the old Fondaco dei Turchi, restored and rebuilt for the purpose. Among the important treasures of the collection are the bronze plaquettes. There is no proper catalogue of these, and Jacobsen gives a description of them, omitting those described in Bode's and v. Tschudi's Berlin catalogue and in Molinier's "Les plaquettes." He gives a description with

some discussion of eleven imitations of antiques, two works of the Byzantine school, eighty-five of the Italian school, five of the French, fourteen of the German, and one of the Netherland school. He also describes an etched iron plaque with family portraits of the Augsburg armorer Anton Peffenhauser. The inscriptions of this plaque are published.

COLUMN OF ALEXIS COMNENUS.—A very interesting archæological discovery has just been made at Venice. A few days ago the dredging machine that is deepening the canal for large navigation met a strong obstacle. A diver having descended into the water to examine the cause, discovered that it was due to a column 11 metres long by 1 m. 80 centim. in diameter, identical with the two famous columns holding the lions of St. Mark. It is, then, one of the columns offered by the Byzantine Emperor Alexis Comnenus to the Venetians in thanking them for having saved the Empire of the East from the Norman invasion. One of these columns fell into the sea on its arrival at Venice and no one had succeeded in recovering it.—*Chronique des Arts*, 1893, No. 26.

SPAIN.

BYZANTINE CULTURE IN SPAIN.—Mr. L. Mabillean, professor of philosophy in the Faculty of Letters at Caen, has been charged with a mission to Spain, his object being to study there the Greek manuscripts of Byzantine origin preserved in the large libraries of that country, and to follow up investigations relative to the history of Byzantine culture in Spain.—*Chronique des Arts*, 1893, No. 11.

PERPIGNAN.—A labourer in a field near Perpignan found the other day, in a vase, a considerable number of coins of the ancient kingdom of Majorca, struck at Barcelona in 1212.—*Athen.*, June 24.

FRANCE.

PSALTER OF ST. LOUIS.—The Duke d'Aumale has given to the nation the great psalter of St. Louis in his library at Chantilly, one of the finest illuminated MS. of the Gothic period. Three psalters are known to have belonged to St. Louis, all mentioned in the Catalogue of the Louvre Library made under Charles V. The first is now in the Bibliothèque Nationale, Paris; the second in the Leyden Library; the third is the present. This MSS. disappeared before 1420 and was carried to England. In 1649 it was brought back to France as the property of the Mesmes family, with which it remained until 1812. It is a small folio containing: first, a calendar; secondly, twenty-seven large

full-page miniatures on gold ground illustrating the Old and New Testament and the life and miracles of the Virgin; thirdly, the psalter; fourthly, the litanies of saints; fifthly, prayers. It is proved that this MS. was written for Queen Ingeburgh of Denmark, wife of Philip Augustus, probably between the years 1214 and 1223. At her death it became the property of Louis, as is shown by a note of the XIV century: *CE PSAULTIER FU SAINT LOYS*. The illuminations are of fine character and admirable preservation by the hand of an artist of the Isle de France, probably a Parisian.—*Chronique des Arts*, 1893, No. 11.

TRIPTYCH OF THE OLD FRENCH SCHOOL. — M. Louis Gonse has called attention in the *Chronique des Arts*, 1893, No. 10, to a triptych in the museum of Valencia, Spain, which he suggests was executed by the French painter Jacquemart de Hesdin. This painting is in the Franco-Flemish style of the first half of the XV century, and equals in beauty the finest of the works of this time except those of the Van Eycks. He reads a communication by M. Paul Durrieu to the Société des Antiquaires in 1889 which shows by means of documents that this painter was established at Valencia before 1440 in the service of King Alphonso V of Aragon. This artist was the son of a famous painter and miniaturist of the same name. The altar-piece at Valencia has evident analogies with the illuminations of Jacquemart de Hesdin the elder, known through M. Delisle, *e. g.*, those of the *Bibles historiques* at Brussels, the *Missel* at Bourges, the *Belles Grandes heures* and the *Merveilles du monde* of the Duke de Berry in Paris. The relationship is just what might be expected between father and son. Another altar-piece of the same style is in a chapel of the cloister of the Cathedral at Barcelona. The subject of the triptych at Valencia is, in the centre, St. Martin on horseback giving his mantle to a beggar. On the left wing is a female saint in blue mantle, and on the right a male saint with long beard. The figures are natural size on gold ground with effective gaufering. It is an interesting fact that the horse faces the spectator, an attempt which was being made about the same time by the early Renaissance painters of Italy. The coloring is harmonious and strong, figure of the beggar extremely truthful and well-modeled, with a combination of boldness and delicacy. M. Gonse was unfortunately unable to procure a photograph of it.

NUMISMATICS.—The prize for numismatics founded by M. Allier de Hauteroche has been awarded by the Académie des Inscriptions to M. Babelon, for his new volume of the Catalogue of Greek Coins in the Bibliothèque Nationale.—*Academy*, Mar. 25.

ALBI.—TOMB OF A MÆDIEVAL BISHOP.—The workmen engaged in repairing the pavement of the rood-loft (jubé) in the Cathedral of Sainte-

Cécile at Albi have brought to light a tomb situated in the choir at the foot of the altar. An examination of it was made in the presence of the archbishop. The earth which filled it was removed with care and a beautiful bishop's crosier was discovered, dating apparently from the XIII century. The pastoral staff is of gilded copper; in the centre of the volute an enameled flower spreads out, with three petals extending to the right, to the left and towards the top. It is formed of two shells welded together. The ball is decorated with finely-chased figures of the four Evangelists, the heads alone being inserted. The head of the staff is ornamented with lozenges of Limoges enamel, in the centre of each of which dragons are engraved, or other animals of the bestiarium popular in the Middle Ages. The crosier must have belonged to Bernard, the founder of Sainte-Cécile, or to his immediate successor. In the earth which the bier contained the remains of a well-developed skull has been found. It is probable that it is the skull of the prelate who was laid in this tomb eight centuries ago.—*Chronique des Arts*, 1893, No. 28.

COURBILLAC.—An interesting archæological discovery has lately been made in the property of Mr. Maillard at Courbillac. Under a thin layer of earth has been found the skeletons of many warriors arranged in a row still girt with sword-belts and armed with lances. The feet of all were turned towards the west. The armor and weapons eaten up by rust have been carefully collected and will serve to determine at what epoch the bodies were buried.—*Chronique des Arts*, 1893, No. 12.

PARIS.—LOUVRE.—Owing to the promotion of M. Saglio from the Louvre to be Keeper of the Cluny Museum, the quondam Département des Sculptures du Moyen Age, de la Renaissance, et des Temps Modernes, formerly under M. Saglio's charge, has been divided into two, one of which is assigned to M. Molinier, the other to M. Courajod.—*Athen.*, July 22.

M. Gaston Migeon has been appointed adjunct-conservator in the department of Renaissance and modern objects of art in the Louvre.

M. Etienne Michon has been appointed salaried assistant in the department of Greek and Roman Antiquities at the museum.—*Chronique des Arts*, 1893, No. 26.

SALON CARRÉ.—A noteworthy and valuable addition has been made to the Salon Carré of the Louvre, in the shape of a brilliantly painted small panel of St. Sebastian, by an unnamed artist, but evidently of the period of the transition from the Gothic style to the development of the Renaissance. It is of miniature size, rich in colour, vividly illuminated and full of animation, the expression a little exaggerated;

it is in excellent preservation. In the same room will be found two newly acquired portraits, one of which is said to represent Hercules D'Este, and is Florentine in its type; the other is the head of a young man and seems to belong to the school of Naples. With these a head of Christ, attributed, with probable correctness, to El Greco, should not be overlooked. A certain amount of classification of a very much needed kind seems to be gradually taking effect in the Long Gallery of the Louvre, and the productions of the schools severally are being drawn together. The next thing to occur to the authorities of the Louvre will, let us hope, be grouping the pictures, so that one need no longer walk more than a quarter of a mile from, *e. g.*, one Gerard Dou to another.—*Athen.*, June 24.

GREEK AND RENAISSANCE SCULPTURES ADDED.—The managers of the national museums have just acquired for the Louvre a bas-relief in white marble of the hellenistic period representing a big-bellied Silenus reclining on a goat's skin and borne in a broad-wheeled cart; a Satyr escorts him. M. Grandidier has recently made a gift to the same museum of a high-relief in marble (a head of a man) belonging to the Italian Renaissance, and M. Sorlin-Dorigny has presented a bas-relief from Assyria representing a Sacrifice to Apollo Krataios.—*Chronique des Arts*, 1893, No. 28.

ADDITION OF EARLY CHRISTIAN ANTIQUITIES.—The Minister of Public Instruction and Fine Arts has just authorized M. Kaempfen, director of the National Museums, to accept for the Louvre the following gifts from M. Le Blant, member of the Institute:

Eight Christian inscriptions, from Lyons, Arles, Orange, Grenoble, etc.;

A fragment of a sarcophagus from Arles and representing a portion of the so-called "Multiplication of the Loaves";

An inscription found at Civita-Vecchia;

An inscribed plaque from a "loculus" in the Catacombs;

A fragment of a colonnette from a "ciborium" found in Rome, and bearing on its base the names of the sons of Saint Félicité.

These objects have been placed in the Hall of Christian Antiquities.—*Chronique des Arts*, 1893, No. 28.

SAINTE-CHAPELLE.—The works of reparation which for some time past have been in progress on the south side of the Ste. Chapelle, Paris, are now finished; the scaffolding has been removed and the north side of the building is to be taken in hand.—*Athenæum*, Sept. 16.

JACOBIN MONASTERY.—The French newspapers record the discovery of various Gothic arches, formerly portions of the chapel and cloisters of the Jacobin convent in Paris, whose history is practically part of the

history of the xvi and xvii centuries in France, and is connected with the still existing name of a political party. These remains have been brought to light during the rebuilding of the École de Droit.—*Athenæum*, Sept. 9.

ROUEN.—CATHEDRAL.—Six hundred thousand francs are to be expended upon the repair—we hope it will not be the “restoration”—of the exterior of Rouen Cathedral. For many years operations, which have not been wholly unfortunate, have been going on in the interior of the great church.—*Athenæum*, Sept. 16.

GERMANY.

ARCHÆOLOGICAL COURSES FOR TEACHERS.—In the spring of 1892 holiday courses of archæological lectures for teachers in the gymnasia were held in Berlin, Bonn, Dresden, and Munich, in pursuance of the plan for enabling the teachers to enrich their instruction by means of archæology.—*Arch. Anzeiger*, 1893, No. 2.

ARCHÆOLOGICAL VISIT OF TEACHERS TO ITALY.—Invitations have been issued by the German Archæological Institute to various German governments to send teachers in the gymnasia to Italy to profit by a course of inspection of ancient art during the autumn of 1893.—*Arch. Anzeiger*, 1893, No. 2.

THE RELATION OF ARCHÆOLOGY TO THE GYMNASIA.—At the 42nd meeting of German philologists and schoolmen in Vienna, May 23rd and the following days, many prominent archæologists were present, and discussed the relations of archæology to the gymnasia. A summary is given in the *Arch. Anzeiger*, 1893, No. 2.

THE ROMAN WALL.—The *Archäologischer Anzeiger*, 1893, 4, p. 169, sq., contains a report of the activity of the imperial *Limes Commission* for the last four months of 1892–3, and the first eight months of 1893–4. Excavations and researches were carried on at thirteen different parts of the *limes*. Numerous remains of Roman fortifications were investigated, and the lines of Roman roads traced. A final publication of the important results of the labors of the commission is promised for the near future.

BERLIN.—MUSEUM.—The acquisitions of the Berlin Museum in 1892 comprise: Seven marble originals, twenty-five casts, sixty-six vases, thirty-one terracottas, twenty-three bronzes, twenty-four gems and the like, a collection of amphora handles, the contents of a grave in Syria, some fragments of mosaic, and a few miscellaneous objects. These are all described (41 cuts) in the *Archäologischer Anzeiger*, 1893, 2, the marbles and casts by R. Kekulé (who also describes a large marble

lion of Attic workmanship, bought in 1891 at Vigonovo, near Dolo, (between Padua and Venice), the other acquisitions by A. Furtwängler. The new arrangement of the casts is described by Kekulé.

ARCHÆOLOGICAL SOCIETY.—At the February meeting of the Archæological Society in Berlin, the following papers were read: *Winnefeld*, on vases similar to those found at the Kabeirion near Thebes; *Steindorff*, on archaic Egyptian statues and on Flinders Petrie's excavations at Tell el Amarna in 1892 (cut of a stucco pavement). At the March meeting, *Richter* spoke on the Pantheon, *Oehler* on the harbors of Carthage, *Luschan* on the Sendschirli-Publication, *Lehmann* on the deciphering of the so-called Hittite inscriptions, *Engelmann* on an Attic vase in the British Museum, with the representation of a *κῆπος*. Summaries are given in the *Arch. Anzeiger*, 1893, No. 2.

GLENEL (NEAR KÖLN).—Near the site of a XI century building were found some Roman antiquities and sculptures which had been used as building material for the Romanesque church. The most interesting inscription reveals for the first time the name of the *Aluuccanae*, probably the couple of Gallic goddesses figured in reliefs at Poitiers and at Bonn. Their names were *Avcha* and *Hellivera*. Here was also found a matronal-aediculum, with two reliefs, one over the other. In the upper are three matrons seated in a niche. On the lower relief is figured, also in a niche, a scene of offering.—A. KISSA, *Korrespondenzbl. d. Westd. Zeitschr. f. Ges. u. Kunst*.

HEIDELBERG (NEAR).—ANTIQUES AT STIFT NEUBURG.—The *Archäologischer Anzeiger*, 1893, 4, p. 187, sq., gives a catalogue by R. Zahn of antiques at Stift Neuburg, near Heidelberg (4 cuts). Three objects were brought by the late Baron v. Bernus from Greece and Italy. Among them is the left hand of rider No. 94 of slab 31 (Michaelis) of the northern frieze of the Parthenon and several other specimens of sculpture, chiefly from Sicily and Italy, a number of Greek as well as Italian vases, and other objects of terracotta and a few bronzes.

HERMESKEIL.—PREHISTORIC MOUNDS.—In 1888 the provincial museum of Trier planned excavations of the prehistoric mounds in the Daun district. Twenty mounds belonging to the transitional period from the bronze age to the Hallstatt period were excavated and an account of them published by Hettner in the *Trier Zeitung*, 1888, No. 279. In the summer of 1892 a second group of these mounds were excavated in the region about Trier. The excavations began with Grapenwald, where there are twenty, most of them small, mounds. Six of these were unearthed. The first mound revealed, at about 1 m. from its summit, an urn of gray clay of the La Tène form. Near it were pieces of iron and a bronze amulet. A second urn with swelling body was roughly

incised with an ornament resembling the Doric triglyphal frieze. The mound would appear to have been used subsequently by the Romans, for near the surface was found a fine Roman urn containing remnants of burned bones. It was protected by inclined stones. A second mound presented evidence that the body was burned, not buried, for in the middle of it was found a layer of ashes. No remains of bones were found, but two lances were placed at the head and an urn at the feet of the body. At Steinerwald six of nine mounds were excavated. Here absolutely no bronze was found and but scanty remnants of iron. In the interior of the mound was a rectangular enclosure constructed of rude stones set together without clay or mortar. The center pieces of the stones were blackened with smoke and the floor hardened by fire, while between the stones were remains of burned wood. This enclosure contained an urn of the latest La Tène period. A second construction of similar character was found in the same mound. In the other mounds of this group there was no such construction found. The richest group of the Hermeskeil mounds is that of the district Hilterwald. The largest had been excavated before and revealed little, a second contained a rectangular stone enclosure with ashes and urn. A third is of peculiar interest from its oval ground-plan. It contained no less than five stone graves, one of rectangular form, a second nearly circular, the third oblong with rounded extremities, the fourth an elongated rectangle and the fifth being hardly more than inclined stones to protect the urn. Two of these graves gave certain evidence of burning, while one certainly and probably the remaining two were used for burial. On the southern half of the Helterwald group seven mounds were excavated. These contained vases of more elegant form, made by the potter's wheel and painted. Finer objects of bronze and iron were also found here. These objects are all assigned to the La Tène period. Though painted vases are rare in this period, they are not unknown, since vases painted with black have been found in the Pfälz near Alsheim and bowls at Elzheim.—DR. H. LEHNER in *Korrespondenzbl. d. Westd. Zeitschr. f. Ges. u. Kunst.*, 1893, Nos. 5, 6.

KÖLN.—NEW ROMAN DISCOVERIES.—At the end of May the reconstruction of some houses at the corner of Luxemburg and Hochstadenstrasse led to the discovery of the remains of a Roman building more extensive than any yet found in this neighborhood. Although the foundations were not found, a sufficient number of architectural fragments were discovered to admit of the restoration of the façade. It was an important gable structure, whose height was about 9.50 m. The entablature rested on two corner pilasters with rich Corinthian capitals. The gable span was more than 6 m. The front, in which

was a rectangular doorway, was of calcareous stone. The calcareous stone walls were extended a short distance on either side, uniting with walls of tufa, and having cornices of similar profile. The purpose of the building is not perfectly evident, though fragments of the gable decoration, showing a globe upheld by two wild goats, suggest that it was a sanctuary to Divus Augustus.

No less successful were the excavations on the adjoining land. Here several sarcophagi, already opened, were found. But their contents had not been entirely robbed. In one was found a rare and beautiful silver fragment of a sword-sheath, on which was inscribed, in black *niello* on a gold band, *Ausoni vivas*. About this band was openwork of rosettes and vines, representing filigree work, very uncommon in Roman antiquities.—*Korrb. d. Westd. Zeitschr. f. Ges. u. Kunst.*, 1893, No. 7.

The neighborhood of S. Severinus has furnished during the present year a rich supply of Roman antiquities. Several tufa sarcophagi were found, most of which had been previously opened. Two yielded, besides remains of bones, a quantity of glass. The most perfect specimen was a black cup with handle of bone, ornamented with silver and gold. The same region furnished an interesting terracotta group of Kybele riding the lion, and an excellent bronze medallion of Geta. The inscription on one of the sarcophagi furnishes a new cognomen, *Friattius*, doubtless of Gallic origin.

Excavations for a new building in the Richard Wagnerstrasse revealed a stone group of Aeneas and Anchises. It is a replica of the group in the Wallraff-Richartz Museum, which was imperfect, but may now be correctly restored.—A. KISA in *Korrespondenzbl. d. Westd. Zeitschr. f. Ges. u. Kunst.*, 1893, pp. 95-96.

CHRISTIAN INSCRIPTION.—On removing the plaster from the third pier of the right side-aisle in the church of S. Ursula was found a hard stone tablet containing a remarkable inscription, of which the following may be read: [*In hoc | tum*]ulo *innoces virgo jacet | [no]mine Ursula, vixit | [a]nnibus octo [m]ensibus duobus mens oval ...*. The context and form of the inscription, and its resemblance to the Valentinianus inscription from S. Gereon's, show this to belong to the v century. Hitherto such inscriptions have been found only in S. Gereon's. It shows that the erection of churches near the bones of martyrs applied to the Holy Virgins as well as to the martyrs of the other sex.—*Korrb. d. Westd. Zeitschr. f. Ges. u. Kunst.*, 1893, No. 7.

EARLY CHRISTIAN ANTIQUITIES.—Beneath a mediæval wall near the corner of the Luxemburg and Hochstadenstrasse was found the bronze covering of a wooden chest. It contained, besides dolphin handles and

lion-head medallions, a decorated plaque representing an Orante with outstretched arms, near whom were two men in profile carrying fillets. A number of glass objects were also found, connecting Roman with Renaissance technical methods. On one glass cylinder was overlaid a fantastic ornamentation of serpents, recalling the Roman method of Barbotine, or overlaying of terracotta on glass.—*Korrbl. d. Westd. Zeitschr. f. Ges. u. Kunst.*, 1893, No. 7.

WORMS.—FRANKISH FIBULA.—In the Frankish cemetery at Abenheim was found the ornamented portion of a bronze fibula of unusual design. It represents two crossing bands like a *suastika*, the extremities of which end in the double-headed, curved-beaked animal which appears so frequently in Frankish monuments. In the centre is the support for an ornament, which was probably a small glass knob, since a metallic ornament would have left some trace of its existence.—Dr. KOEHL in *Korrbl. d. Westd. Zeitschr. f. Ges. u. Kunst.*, 1893, Nos. 8 and 9.

WÖSSINGEN. (AMT BRITTEN).—ROMAN DISCOVERIES.—Fragments of painted stucco and decorated vases from this district were found as long ago as 1837. The Archæological Society of Karlsruhe undertook excavations here in the month of April, 1893, with E. Wagner in charge. Remains of three buildings were discovered. In the first, a small rectangular structure, were found a grindstone in excellent condition, a trowel and other objects of iron, small objects in bronze and fragments of vases. A second structure of similar size revealed nothing but fragments of tiles. The third structure, though like the others architecturally uninteresting, furnished an unexpected supply of results. Apparently the building had been burned, for on the top of the mass of rubbish in the cellar were fragments of stucco with incised decoration originally attached to wooden walls. The large quantity of fragments of pottery permitted the reconstruction of about thirty vases of different forms. Amongst a number of iron objects were found two novelties, the use of which is as yet unknown. One is an instrument not unlike a spear head, the other is heart-shaped with rings in the extremities. Several figured bronzes and statuettes were also found. As if to preserve the date of this collection, a copper coin of Septimius Severus of the year 195 A. D., was found in the cellar. Further digging revealed portions of the surrounding wall of this Roman country estate. The buildings already excavated were doubtless subsidiary structures and the main edifice, which revealed the painted stuccos, has not yet been found. Other estates belonging apparently to retired Roman officers have been found in the same district.—E. WAGNER in *Karlsruher Ztg.*, July 7 and 8, 1893.

GREAT BRITAIN.

ARCHÆOLOGICAL MAPS.—At the recent congress of antiquarian societies, it was announced that the archæological maps of Essex, Lancashire, Cheshire, Surrey, Sussex, and Derbyshire have been considerably advanced since the meeting of last year. Maps are being prepared by societies in Herfordshire, Cumberland, and Westmoreland. A series of symbols has been devised by the standing committee, for the diagrammatic representation of ancient objects and sites; and a resolution was passed, expressing a hope that all societies joining in the archæological survey of England will ensure uniformity by adopting these symbols. Mr. H. S. Pearson gave a description of a photographic survey of the county of Warwick. Each photographer who took part in the work was assigned a district of about six square miles; and the photographs were submitted to the approval of a committee. Up to the present time, about 1700 excellent photographs have been taken; and permanent prints of them have been mounted and placed in the Free Library at Birmingham.—*Acad.*, July 29.

PHOTOGRAPHIC INVENTORY OF THE MONUMENTS OF GREAT BRITAIN.—Under the direction of the Archæological Societies of Great Britain, a sort of confederation of amateur photographers has been formed, with the object of making a complete photographic inventory of all monuments possessing any importance. Each amateur is assigned a small zone of nine or ten square kilometers and is directed to photograph everything of archæological interest within that zone. A committee examines the photographs and accepts or rejects them as the case may be, while a copy of each is placed in a library for public use.—*Chronique des Arts*, 1893, No. 28.

SCANDINAVIAN ART IN GREAT BRITAIN.—A paper with this title was read at a meeting of the Viking Club by Mr. J. Romilly Allen, who commenced by saying that the period of the Viking invasions of Great Britain was known historically from the Anglo-Saxon Chronicle and other annals, while the area permanently occupied by the Northmen could be very accurately determined without any historical evidence, by means of place-names and archæological discoveries. The characteristics of the art of Scandinavia and of Great Britain during the period immediately preceding the Viking conquests were very fully explained. The typically Celtic and Anglo-Saxon objects imported into Scandinavia, and the typically Scandinavian objects found in Viking graves and hoards in Great Britain, were next dealt with, it being pointed out that, while the former were valued by the Northmen on account of the intrinsic beauty of their workmanship, and even carried back to their native land and buried with them, the latter

were introduced into this country partly by commercial intercourse and partly by conquest. The influence exercised upon the art of Scandinavia and of Great Britain by bringing the Pagan Northmen into direct contact with the Christianised Celt and Anglo-Saxon was investigated at some length. The author observed that, although the number of monuments and objects found in Scandinavia, exhibiting mixed Celtic and Northern art, or Anglo-Saxon and Northern art, was extremely small, yet there were districts in Great Britain, more especially in the Isle of Man and the adjacent coasts of Cumberland, Lancashire, and North Wales, where monuments exhibiting Scandinavian influence were comparatively plentiful. The paper concluded with a careful analysis of the specially Scandinavian peculiarities of the geometrical patterns, zoomorphic designs, and figure-subjects taken from the mythic-heroic Eddaic poems, which occur on the early Christian monuments within this area. Certain patterns formed of chains of rings were shown to be common to the Manx crosses and fonts in Swedish churches. In the interlaced work there was a tendency in the bands to bifurcate and break off into scroll-like terminations. In the zoomorphic designs the beasts usually had only two toes instead of three, the bodies were covered with scales, the attitude with the head bent back was peculiar, a crest issuing from the head formed interlacing convolutions with fin-like appendages in places, and the junction of the legs with the body was conventionally indicated by spirals. The mythological subjects were taken chiefly from the story of Sigurd Fafni's Bane which is to be found first in the Elder, or Poetic Edda, occurring subsequently in the Völsunga Saga, and also forming the basis of the old High German Nibelungenlied. Examples of scenes from this legend were to be seen on crosses at Kirk Andreas, Jurby, and Malew in the Isle of Man, and on the carved woodwork of the doors of churches in Sweden. The bound Loki and Thor fishing for the Midgard worm occurred at Gosforth in Cumberland, and Weyland Smith at Leeds, and Halton in Lancashire. The paper was illustrated with numerous photographs and rubbings, among the latter being those of the tympana of doorways at Hoveringham, Notts, Southwell Cathedral, and St. Nicholas, Ipswich, which show very marked Scandinavian influence.—*Acad.*, Feb. 11.

ANGLO-SAXON ARCHITECTURE.—Mr. J. Park Harrison has published (Henry Frowde), as a supplement to *Archæologia Oxoniensis*, an illustrated pamphlet on "English Architecture before the Conquest," in which he maintains (1) that many relics of Anglo-Saxon architecture still exist unrecognized, and (2) that Anglo-Saxon architecture was itself a survival from Roman times. The evidence adduced comes

from various quarters. The strongest, perhaps, is that derived from the illuminated Anglo-Saxon MSS. of the tenth and the early eleventh century, which shows designs and patterns that are repeated on contemporary buildings. Much less strong is that based upon the traces of tool-markings, it being argued that the Saxons used cross-axing, while the Norman tooling was in diagonal lines. Another line of evidence is that of comparing doubtful buildings with others admitted to be earlier than the Conquest. For example, the tower of St. Michael's church at Oxford is here compared with that of St. Benet's at Cambridge. It is also argued, from historical data, that the two towers at Lincoln (St. Peter-at-Gowts and St. Mary-le-Wigford) are pre-Norman in age as well as in style. In the appendix are given a list of architectural details in Anglo-Saxon MSS., together with plates showing reproductions of many of these details.—*Academy*, Sept. 2.

ENAMELLING IN IRELAND.—We have received a separate part of the *Transactions* of the Royal Irish Academy, containing two papers on a block of red glass enamel said to have been found at Tara Hill. The first is by Prof. Vincent Ball, director of the Science and Art Museum at Dublin, who describes the history of the specimen, its chemical analysis, and its possible use in the arts. It seems to bear a close resemblance to the lumps of *porporino* found in Rome. Its composition is that of a kind of flint glass colored red with oxide of copper. It is a true enamel, but (for practical purposes) exhausted, since on being fused it now burns to a dark green. The second paper is by Miss Margaret Stokes. The first gives a detailed account of what is historically known about the art of enamelling as practiced in ancient Ireland, and then proceeds to describe certain specimens of enamelled bronze ornaments preserved in the museum of the Academy. These are beautifully illustrated in a colored plate, which we observe has been printed at Frankfort. Finally, she concludes: "When we read the testimony of ancient writers as to the splendor of our ancient horse-trappings, and find enamelled bronze bits, loops and clasps, all fragments of such furnishings discovered in this country, and now in our museums, it is impossible to avoid the suggestion that this lump of crimson enamel was raw material in the workshop of some goldsmith or jeweler in the Rath of Caelchu on Tara Hill."—*Academy*, July 8.

NORMAN AND BELGIAN FONTS.—The fonts of Lincoln and Winchester cathedrals have been usually regarded as contemporaneous with the building of the cathedrals. This date, however, now appears to be too early, recent investigation indicating that they belong rather to the middle of the twelfth than to the latter half of the eleventh century. They both, as is well known, belong to a type of which we have other

English examples at St. Michael's, Southampton, East Meon, and St. Mary Bourn in Hampshire, and at Thornton Curtis in Lincolnshire. The last-named is an exact copy of the Lincoln font on a smaller scale, and is of the same material, black slate stone. All these fonts conform to the same model. A square basin with a hemispherical bowl is supported by four short columns, one at each angle, and a stout cylindrical block in the centre. The four sides of the basin are decorated with carvings in low relief, which at Winchester are partly symbolical, partly historical, and at Lincoln represent mythical monsters. The English origin of these fonts had hardly been questioned until the recent researches of M. Paul Saintenoy in Belgium, and of Miss Emma Swann, brought to light examples of the same type in various places in the Low Countries, the correspondence of which with the examples in English churches, in form, ornamentation, and material, is so striking that it can hardly be doubted that they had a common origin. The most remarkable of these Belgian examples are those at Zedelghem and Termonde. In the former, the historical subjects, as at Winchester, are taken from the legend of St. Nicholas of Myra, and the treatment is so much the same as to render it almost certain that they were both the work of the same hand. The general resemblance in style and character of the Termonde font to that at Lincoln is equally striking, as will be apparent to those who have access to M. Saintenoy's recently published work, *Prolegomènes à l'Étude des Fonts baptismaux* (Lyon-Claesen, Bruxelles, 1892), which contains illustrations of both, as well as that at Winchester. The author truly says, "ils présentent des analogies telles qu'il n'est pas possible de douter de leur origine commune; c'est frappant" (p. 98). The black stone of which these fonts are made has been traced to quarries near Tournay, which, according to the work of MM. De la Grange and Cloquet, *Études sur l'Art de Tournai*, cited by M. Saintenoy, is found used for fonts in the whole of the north of France, in Flanders, Hainault, as well as, as the examples referred to prove, in England. The importation of fonts of this type into England, and, while rare or non-existent elsewhere, their appearance in such widely separated districts as Hampshire and Lincolnshire, open a very interesting field of inquiry. Archæologists will be glad to know that such an inquiry, together with the history of fonts generally, is being prosecuted by Miss Swann who, together with the late Prof. Westwood's literary and artistic collections, inherits his archæological spirit, his patience of research and accuracy of mind.—*Athen.*, Mch. 18.

BERKSHIRE.—ROMANO-BRITISH REMAINS.—Some very curious Romano-British remains have recently been noticed at North Field Farm in

Long Wittenham parish, just opposite to Dorchester and Burcote on the Berkshire side of the Thames. It was observed that in certain fields, especially in two called Fox Furlong and Scabbs, the crops grew taller and better on certain patches and along certain lines. He had the lines mapped out, and has begun to dig at suitable spots. The lines in the crops seem to show roads with various enclosures, round or square. The excavations revealed Romano-British pottery, mostly of rough local make, but including some "Pseudo-Arretine" (a stamp, AVITVS F); broken tiles; one or perhaps two wells with masonry casing; and a great deal of lime.

No flint or stone foundations or coins have been noticed, though Roman coins have been found two fields off. The search will, we understand be carried further. So far as we can at present judge, we have not a Roman town with basilica (as has been suggested), but traces of British and Romano-British farming. The lines visible in the crops seem to be due to wattles and dab walls, though some may well be ditches, for the river is near. There appears, then, to have been first a British settlement with round huts, corresponding to the circles. This was succeeded by rectangular enclosures, more Roman in appearance, perhaps yards, in the corners of which can sometimes be noted what may have been very small dwellings or sheds. Other lines seem to represent roads or paths; many of the enclosures are built along these, and some of them run parallel or at right angles to one another. Other lines, again may be ditches. That the circles and square enclosures are of different dates is shown by the fact that in some cases they intersect. There was a Romano-British "station" at Dorchester, though the Roman name of it is totally unknown, and the British camp on the so-called Sinodun Hill is known to every tourist. By accident or design, the broadest of the apparent roads points directly to it. We need only add that Mr. Hewett is dealing with the remains in a manner that deserves praise and imitation.—ARTHUR J. EVANS—F. HAVERFIELD in *Athen.*, Aug. 26.

CAMBRIDGE.—THE FITZWILLIAM MUSEUM.—We quote the following from the annual report of the Fitzwilliam Museum syndicate at Cambridge: "Among the acquisitions made during the past year, the most important is a collection of vases, weapons, ornaments and other objects in pottery, bronze, &c., which were found during the excavations recently made in the Necropolis of Tamassos in the Island of Kypros. This collection has been presented to the museum by Sir Henry Bulwer. In accordance with his wish a certain number of duplicate specimens of pottery from this collection have been presented to the museums of various public schools, namely, those of Eton, Westminster, Marlborough, Cheltenham, and Haileybury.

"An important addition has been made, by purchase, to the picture galleries: a head of Christ in fresco, by the XIV century Sienese painter Ambrogio Lorenzetti, from the wall of a church near Perugia, which is now destroyed.

"Mr. Samuel Sandars, already a very munificent benefactor, has, during the past year, made many valuable donations, among which the most important are twelve illuminated manuscripts. One of these, a Psalter of the middle of the XIII century, is a very beautiful example of English art. Another MS. of special interest gives the records of a musical guild in Venice, extending over a period of about two hundred years. At the beginning are two very beautiful miniatures of the Florentine school, dating from about the year 1400 A. D.

"Some other important additions have been made by purchase to the collections of illuminated MSS. and books printed on vellum. Among the most notable are the following: A Franco-Flemish MS. Book of Hours of about 1450, with fine miniatures, which are especially remarkable for the extraordinary brilliance of their coloring and perfect state of preservation. The border of every page is decorated with the ivy-leaf ornament. Another Book of Hours, of unusually fine style, contains a number of small miniatures, which are very good examples of North Italian art during the XV century. The cost of this beautiful little MS. was partly defrayed by the generosity of a member of the Senate, who does not wish his name to be given. We may also mention a very fine copy of a Book of Hours, with borders and full-page pictures from blocks of soft metal, printed on vellum for Simon Vostre (Paris, 1507); and a magnificent folio volume of the Decretals of Gratian with illuminated initials, printed on vellum at Venice in 1479, a wonderfully sumptuous and brilliantly preserved example of the art of typography in its most costly form. A fine copy of Boethius, on paper, printed by Arend de Keyser at Ghent in 1485, is specially noticeable from its containing a number of large miniatures painted in spaces reserved for them in the text. This beautiful book is an interesting example of the transition from illuminated MSS. to printed books, which gradually took place in the second half of the XV century. The University Library possesses a copy of Boethius, printed by Colard Mansion, which is decorated with a very similar set of miniatures.

"A considerable number of valuable books on mediæval and modern art have been purchased for the Fitzwilliam Library; and a few important additions have been made to supply wants in the collection of English coins. Among the latter the most noticeable is a good specimen of the double-ryal of Henry VIII's first coinage, one

of the largest and most magnificent gold coins of the whole mediæval period."—*Acad.*, Mar. 14.

CLAYTON.—MEDIÆVAL PAINTINGS.—In the church of Clayton, in Sussex, which is unfortunately undergoing the process of "restoration," a number of frescoes have been discovered under the whitewash.—*Athen.*, Aug. 12.

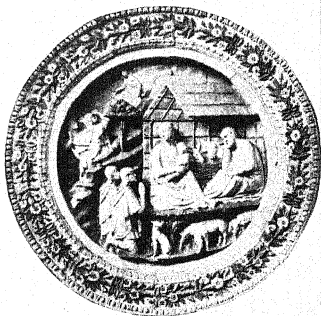
These remarkable mural paintings are probably of the thirteenth century. The design appears to have extended over all the walls and to have been a representation of the Last Judgment. Over the chancel arch our Lord is seated in glory, and on each wall of the nave is a long procession of ecclesiastic and royal personages, etc., with angels. Below is a broad border and under it may still be traced figures rising from their graves. On the one side of the chancel arch there is also a representation of our Lord delivering the keys to St. Peter, on the other he appears again with a kneeling figure, probably St. John or St. Paul. These paintings have awakened a good deal of notice and have already been visited by many archaeologists of repute, who agree in pronouncing them to be important and interesting.—[*London Times's Correspondence.*]—*Boston Ev. Transcr.*, Nov. 1.

KIRKSTALL ABBEY.—The excavations at Kirkstall Abbey, which were suspended when the Corporation of Leeds undertook the more important work of preserving the ruins above ground, and disfigured them sadly, have lately been begun again, and so much has been found that it seems likely that a plan will be recovered more complete than exists of any other abbey in England. The west side of the outer court, opposite the church, has been opened out, and it is found that there was a large thirteenth century wall two stories high, and a large kitchen, and other offices adjoining, besides other apartments which have evidently been private chambers. The whole was, there can be little doubt, the principal guest-house of the abbey. A great range of buildings still only partly explored extends to the west and south of this, and there is more on the north and near the river. On Monday last the committee of the Corporation who are directing the work, with Mr. J. T. Micklethwaite who is advising them, visited the abbey, and it was determined to suspend the ornamental laying out of the ground, which has been begun, until the extent of the remains below ground is known, lest by chance injury should be done to them. When a good plan of the whole has been made, it will have to be determined whether the excavated foundations shall be buried again or left exposed, and if the latter, what means shall be taken to protect them from harm by mischief and the weather.—*Athen.*, June 24.

A. L. FROTHINGHAM, JR.



1. THE OXFORD MEDALLION OF 1428.



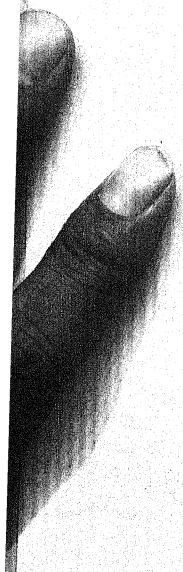
2. THE NATIVITY. S. KENSINGTON MUSEUM.

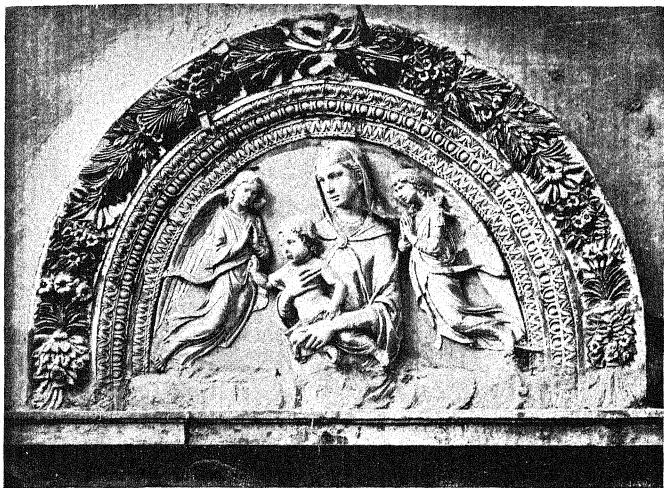


3. MADONNA AND CHILD WITH SIX ANGELS.

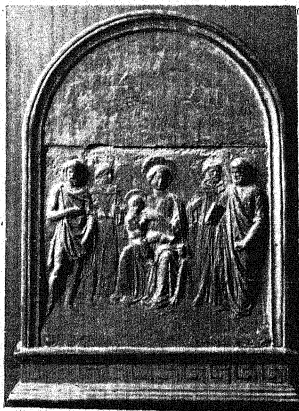


4. MADONNA AND CHILD IN A NICHE.
S. KENSINGTON MUSEUM.





1. LUNETTE FROM S. PIERO BUONCONSIGLIO. MUSEO NAZIONALE, FLORENCE.

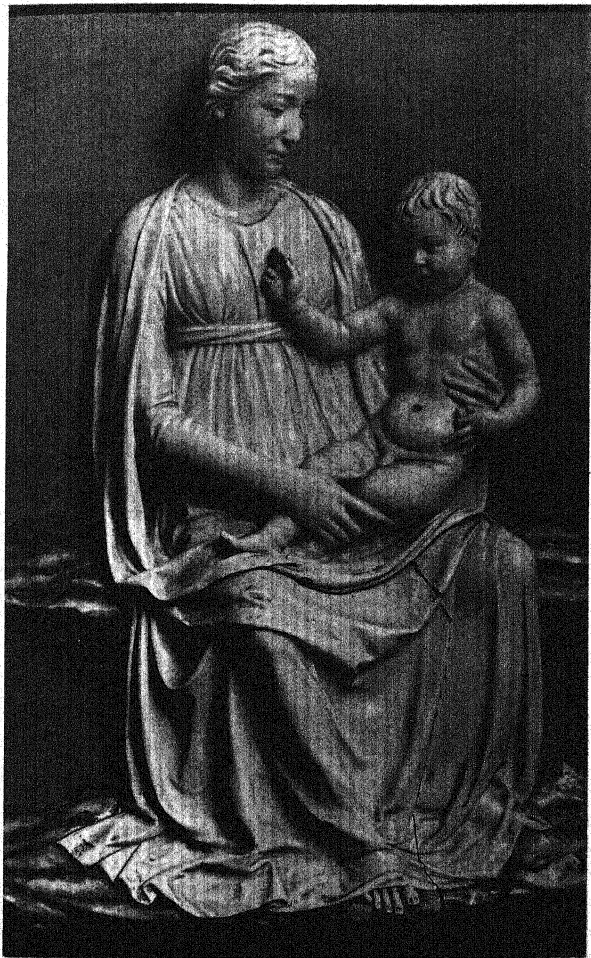


2. STUCCO RELIEF. LOUVRE.



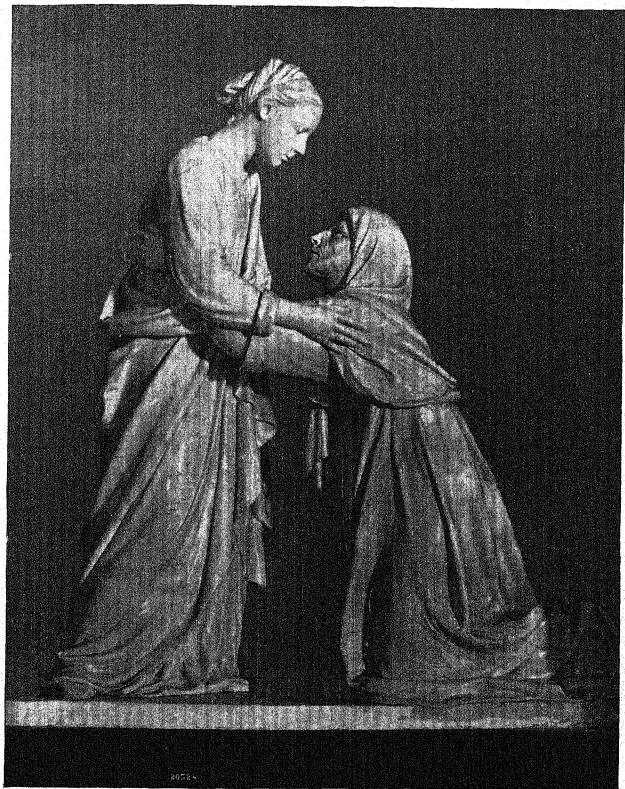
3. MEDALLION. MUSEO NAZIONALE, FLORENCE.





MADONNA AND CHILD. BARDINI COLLECTION, FLORENCE.





GROUP OF THE VISITATION. S. GIOVANNI FUORCIVITAS, PISTOIA





LUNETTE IN THE VIA DELL' AGNOLO, FLORENCE.



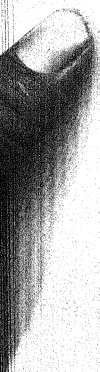
1. GAVET COLLECTION. PARIS.



2. FRAMED RELIEF. BERLIN MUSEUM.

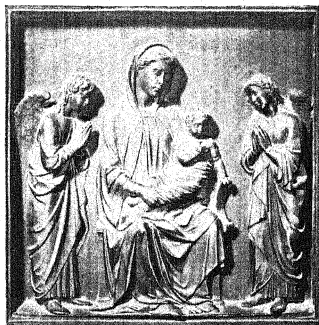


3. MADONNA AND CHILD WITH QUINCE.
BERLIN MUSEUM.





1. S. MARIA DEL FIORE. MUS. NAZ. FLORENCE.



2. FROM BRONZE SACRISTY DOORS.
FLORENCE CATHEDRAL.



3. IN THE INNOCENTI HOSPITAL GALLERY.
FLORENCE.

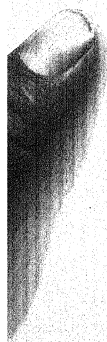


4. FROM THE FEDERIGHI TOMB.
S. FRANCESCO DI PAOLA. FLORENCE.





LARGE PAINTED RELIEF. BERLIN MUSEUM.





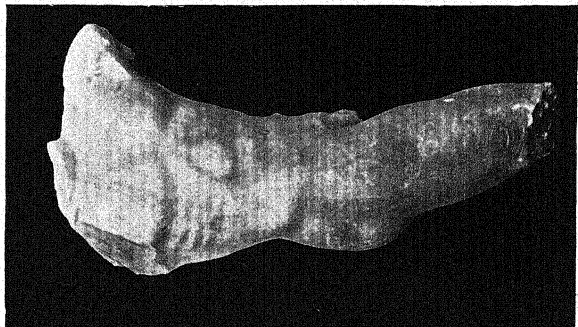
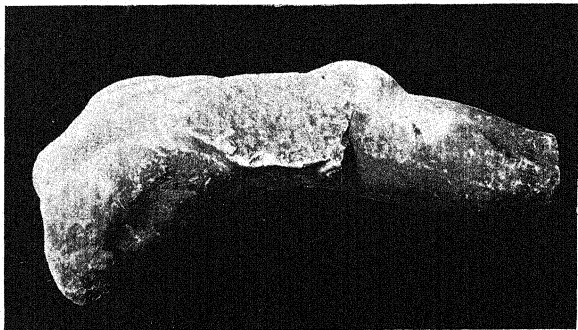
THE ADORATION. COLLECTION OF M. FOULC. PARIS.



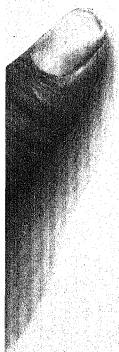


PANEL PAINTING BY RICO DI CANDIA. UFFIZI, FLORENCE.





A TORSO FROM DAPHNE.





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No. 2.

THE PHILOSOPHY OF ART.

THE PERSONALITY OF ART.—In this essay, the word *Art* is not used in the most limited sense, that of the Formative Arts (Architecture, Sculpture, Painting), nor only, in the more extended sense, to include the Literary Arts (Language, Poetry, Music). Art is here conceived to comprise, beside these, the Social Arts, which are Philosophy, Religion, Government, from which the literary and formative arts derive their inspiration and their universal ideas, and to which they contribute material of more external and individual species. It is conceived that these three regions of art—the social, the literary, and the formative—constitute the personality of art, the spirit, the soul, and the body of its organization, presenting analogies to the human person, to man as constituted of spirit, soul, body—of Spirit or Mind (which is the sphere of universal consciousness-activity-life), of Soul, including Will (the sphere of individuality, the *Ego*), and of Body, the physical constitution (the sphere of material consciousness-activity-life). In this unified personality of art, the social arts govern the literary and formative arts, furnish them with general principles and ideal subjects for incorporation, and give to them a higher life and significance; while the lower arts contribute, to the higher, material for the incorporation and expression of their ideas on lower planes of thought. Through this personal constitution, there is, in artistic periods of Society, throughout the entire social organism, a complete permeation and circulation

of universal ideals, which constitute the vitalizing and unifying principles of the civilization of the period. This harmony and coöperation of the arts extends from philosophy to painting; and their comparative study under the light of analogy is one of the most fruitful sources of knowledge as to the ideal significance of the lower arts; for it is in the higher arts, where thought is expressed in language, that we are to find the clearest and most distinct presentation of the psychologic principles and the general ideas which rule and govern all original production in any given epoch, all that constitutes its creative work of inspiration and genius, as distinct from mere imitation, fantasy and reproduction. This integral unity and communion among the arts, arising in the presence of common sociologic principles and norms of civilization, establishes a most intimate family relationship between the arts of any given period, and makes them all contribute to the expression of a common social ideal. This is seen most clearly among artistic peoples and in the constructive periods of society, when the artistic nature is developed on all planes of the consciousness. One of the clearest examples of this is found in Greek civilization, which was artistic and ideal from top to bottom; and presented an intuitive experience of, and a self-sacrificing devotion to, universal social principles paralleled only by the early Christians in their complete surrender to religious ideals, and by the Hebrews and by the medieval Christians in their devotion to theocratic civilization.

PLACE OF ART IN CIVILIZATION.—Civilization personifies human experience in the tri-individuality of Art, Science, and Industry, which constitute the spirit, soul, and body of civilization, and cover the whole ground of man's intelligent production and occupation. Art, as the spirit of civilization, is the highest agent in the development of human consciousness-activity-life; it is either regenerative or degenerative, as it is the exponent of truth-good-beauty, or of falsehood-evil-deformity.

Art occupies that department of human thought and activity which relates to the discovery of the ideality of existence and the laws of the mental universe, and to the incorporation of this knowledge in sensible forms for the sake of the ideal principles which these forms signify and contain, and for the purpose of

communicating these ideal principles to man for use in his mental life and development, and in his relations with other minds. Art is thus distinguished (1) from Science, which investigates the physical universe in the acquisition of knowledge for practical use in the subjection of nature to man; (2) from Industry, which works for the sake of material utility, and as the means of livelihood, in the cultivation, organization, and distribution of the products of the material universe.

Art is, therefore, the highest individuality in that objective world which we call Society or Civilization; it is its spirit, its universal and ideal entity. It is constructed through the human consciousness in opposite ideals, and operates upon this consciousness in its development by regeneration and by degeneration. It involves the operation of the entire human mind from the highest to the lowest of its faculties, from their highest (supernatural) to their lowest (material) condition, and from both constructive and destructive points of view or genera of ideal. In every period of civilization art projects, in sensible and individual form, those universal ideas which rule in this period; and this externalization aids the internal development of the mind by the multiplication of particular forms incorporating these ideas in the various inter-related arts, from philosophy, the highest, to painting, the lowest. Thus, a general ideal will find expression in the greatest variety of forms which appeal to the entire organization of the mind, from the Reason and the Sentiment to the lowest forms of Intellect and Affection, Sensation and Instinct. This ideal will rule in the formation or modification of ontologic principles and the form of Philosophy, of religious principles and the form of the Church, of moral and political principles and the form of the State, of the principles of cognition and the form of education, of the domestic principles and the form of the family, of economic and industrial principles and the form of individual occupation and the conduct of life. This universal ideal thus circulates through the whole social fabric and the consciousness and life of man, constituting the causative agent in the history of any period.

DISTINCTION BETWEEN ART AND NATURE.—From claiming for art this high character and position, it is clear that we hold art to be

a product of man's creative intelligence, and oppose that view which sees in art nothing but an imitation or copy of nature: the latter view would take away from art all reason to exist, would ignore all genius or creative power, all originality of conception, all possibility of progress in the race. The fundamental reason why art is not a copy of nature is, that concrete nature presents opposite ideals, laws, and phenomena in confusive conflict, and that it is one of the most important functions of art to separate, individualize, and distinctly present the opposite ideal realities which are behind the sensible appearances, in order to correct the deceptive and confused appearances of this nature, and to use them in the representation of the ideals of the mind. In every work of art, from landscape-painting to philosophy, nature is used as material, but only as it is transformed into artistic unity with the ideal in the mind of the artist, which is the primary ground and cause of the work of art; and the art consists in the reality of this incorporation of the ideal in actual form so as to express it by means the most clear, simple and direct; whether it be an ideal of beauty or deformity.

Even in landscape-art, which is one of the lowest forms of art, it must be claimed that art is higher than nature by reason of the addition of the element of mind, which raises the work of the artist above the mindless nature which is suggestive to him in his work, and furnishes him with external material. Every work of landscape-art is an ideal composition in both form and color. In many cases, the exact reproduction of the form and especially of the colors of nature would be ludicrously inartistic. The real artist, who takes a subject from nature, reconstructs it into artistic form and color, rejects non-essential elements, using only such parts as aid in the clear presentation of the ideas which this natural scene or object is used to express—because everything that does not aid in this artistic expression is an obstacle, an impediment, and must be removed from the work of art. If it be a work of beauty and congruity (even if it be only picturesque), all features that interfere with, and those which do not aid in, the symmetrical proportion of the parts and between the form and the idea must be either discarded or reconstructed. This applies to all works of art, from philosophy to painting—it is an artistic

dogma. What does a mere imitator or copyist know of such creative work, or those who think, with him, that copies of nature are works of art? Nevertheless, many an artist, unconscious of his mental process, will think that he is copying nature, when nature is merely suggestive to his creative faculty.

PHILOSOPHY OF ART.—The philosophy of art deals, primarily, with the opposite principles of reality, which are the archetypes of relative existence; secondarily, it deals with the works of art which really represent these primary principles in persisting typical forms of thought: all the rest of pseudo art-work belongs either to industry or to the rubbish-heap of art; and it is by far the greater part of so-called art that belongs there, as the waste always present in the natural world. Æsthetic Science should present art in both its theoretic and its practical aspects, and offer a conception of the principles of art (both objective and subjective) which may be useful in the interpretation of its phenomena. It should comprehend (1) a statement of the ontologic archetypes of æsthetic principles* and their psychologic types in the human mind; (2) a definition of art, and a conception of its place as a factor in civilization; (3) a conception of the genera and species of art-ideals, which are the psychologic causes in the construction of its works—including a statement of the classes and species of ideas for which we are to look in works of art, and a conception of the faculties of the mind by which these works are constructed and appreciated. (4) Æsthetic Science must present laws of classification and of the historic development of art which shall be a guide in the comparative study of its generic and specific ideals, of its particular examples, its schools, and its historic periods; recognizing the validity of every species of art that persistently reproduces its kind, and is therefore to be included in the history of art. The philosophy of art should conceive the different art-ideals, present their distinctive character and actual operation, and estimate their relative value according to a universal ideal standard, and by this means give to the observer a

* The ontologic foundation of Beauty and Deformity in primordial Being and Nonbeing is presented in Parts I and II of *Christian Philosophy* (Princeton, A. L. Frothingham, publisher), and reference to these chapters is necessary to the comprehension of the ontologic basis of the Philosophy of Art.

universal and disinterested point of view from which to judge and characterize the varied multitude of its works: it should teach him how to look at works of art from a point of view above the conflict of different ideals and the limitations of his personal preference, and thus to guard against the evil influence of false and immoral art.

The Philosophy of Art must reach the heights above these contending ideals and show the natural relation and succession of these types of thought in the human mind and in the order of human society. It is only by this means that thought can be redeemed from the chaos of conflicting ideals, from the limitations of a partial standpoint and the deceptive judgments of individual opinion and preference, from the instability of an ever-changing free-thought or pseudo-rationalism and the seductive gratification of free-feeling or licentiousness which is associated with it. Such help is much needed at the present time, when the use and study of art are becoming so general, and when the old authorities and landmarks of judgment and of taste are disregarded by the larger number. Confusion and license reign over a democratic civilization of exaggerated individualism, which seeks only pleasure, and too often finds it either in a vicious sensationalism and meretricious realism, or in a fanciful and effeminating idealism; by which the artist satisfies both the licentious taste that demands the production of such works and the commercial motive, which too often leads him to give rein to his technical power in the production of works that conform to an anti-Christian, an immoral, or a fantastic standard.

Writers on art usually write from some partial point of view, expressing some prejudice or preconception. Works on the philosophy of art are more often written in the interest of an individual philosophic ideal, and quite apart from any experience of works of art or any ability to realize them; sometimes they are written from a fanciful or fantastic experience. Histories of art and essays are written at best from a very external point of view, and to support some personal prejudice; often according to a simply literary method which enables the intellectual artisan to write about everything, as well without as with any real knowledge of the subject. The most common historic method is to

regard the great bulk of works of art as unsuccessful attempts to attain the type which the writer or his time prefers; instead of concluding that every species of art that persistently reproduces its kind is to be included in the natural history of art, and that it is the business of the real investigator to study every kind, and to attempt to conceive what psychologic cause and condition led to its production—to conclude that it had a meaning and try to find out what it means; not, because he does not understand it and does not like it, to attempt to brush it away with the cheap phrase of a partial standpoint: "It was a failure; they thought that they thought, but it was not thinking." This point of view recognizes the validity of only that species which is individual to it, being utterly lacking in that universal and artistic faculty of the mind which is able to conceive a more or less extensive group of species quite beyond the limitations of the individuality of the person.

It is not a real philosophy of history (but asophy or foolishness) which leaps from Aristotle to Descartes, from Origen to Schleiermacher and Hegel, from Euripides to Dante, from Praxiteles to Donatello, from Apelles to Raphael, from the age of Pericles to the Renaissance of Paganism of the fifteenth century. It is a Pagan consciousness which claims to do this, ignoring Christianity and Christian civilization. This standpoint is either unable to perceive and realize, or is antagonistic to, the social principles and historic laws of the Christian era. A philosophy of history cannot claim to exist unless it explain the Christian era as a part of history, and even explain the distinct periods and successive ideals of this era.

The time is past when people of true culture could claim to reject any historic species of art because it failed to correspond with a current ideal or with the limitations of the individual preference. Neither æsthetic science nor true taste can be founded on a temporary ideal and the taste of the time; or on the authority of individual opinion, taste, and preference; or on spontaneous and unreasoning judgment—no matter how innately artistic or highly refined and cultivated may be the individual nature.

Neither can æsthetic science be founded on theory alone, no matter how wonderful it may be, either in words or in ideas. A

theory which transcends the actual world of art, and separates itself from actual human consciousness, is without reason to exist. Science, in order to exist, must be founded on a rational synthesis of ideality, reality, and actuality: it must explain the facts, and all the facts, of art-history; it must show art to be integral to civilization, as well as show the relation of art to the manifestation of the integral principles of the mind: all this it must do, or it is not science but nescience.

History shows us that, in the development of a people, the prevalence of an advanced culture in the literary and formative arts has been attended or followed by national and individual degeneration—a degeneration of social institutions, of mental standards, and of individual character, accompanied by luxury of life, laxity of morals, and effeminacy of manners. In other words, history shows that the refinement produced by or attending an advanced æsthetic culture is enervating and unhealthy, is an evil, not a good, and is followed by a rapid degeneration in all the arts. This observed fact has appeared to furnish a ground for the opinion that art is integrally bad, and that its entire influence is to be characterized as demoralizing—an error arising in the inability to separate between its opposite generic principles (between sublimity and the horrible, between beauty and deformity, between the picturesque and the grotesque); and in the failure to distinguish its higher from its lower ideals and standpoints of consciousness, and to attribute to each its specific individuality and mental value.

It has become usual to contemplate art as having qualities of only one genus, as being the exponent of beauty alone; in fact, *beauty* and *art* are used by most writers of the day as equivalent terms. Art, therefore, is claimed by them to be intrinsically elevating and purifying in its causes and effects; and the prevalence of æsthetic culture, even in its merely technical and decorative forms, irrespective of the ideas involved in it, is by many held up as the highest good. We purpose to show that art may be and has been corrupting and debasing, as well as purifying and elevating; that destructive and demoralizing principles and ideals, as well as those which are constructive and moral, are to be found incorporated in art; and that, in certain epochs, these destructive

principles and ideals are to be seen operating, as degenerative social causes, in all the arts from philosophy to painting, and in all departments of human consciousness—the religious and moral, the intellectual and affectional, the social and domestic, and even the industrial.

History shows us that the general ideal of each period appears first in the philosophic or social arts (Philosophy, Religion, Government), passes into the literary arts or arts of expression, and finally becomes incorporated in the formative arts or arts of design. Consequently, degenerative formative and literary art is but the expression of degenerative social principles in philosophy and religion and politics already established in power, and at work in the attempt to found destructive civilization.

The original ideal of any epoch, as distinguished from its inherited ideals and its reproductive and imitative experience, constitutes the productive principle of the new spirit which every age has, though the greater part of the work of the age be merely imitative or reproductive. In order, then, to judge of the original work of any epoch, of any new departure (that which makes its significance), we must first determine the nature of the artistic principle and creative psychologic agent at work in this production; and this will show on what road this epoch is advancing—whether it be the road of health and regeneration, or the road of disease and degeneration: for there are but these two roads of advance. The fact that any system of ideas prevails throughout a community—is active, militant, profusely productive—does not prove that these are manifestations of healthy mental activity. Evidences of disease and degeneration, especially if these be deeply seated, do not readily show themselves to casual or external observation: it is only by philosophic analysis of the internal principles at work as the mental causes of the artistic effects, that we can penetrate below the surface, and get at the real social significance of any period.

We claim, then, that art, like everything else in this world, has its false-evil-deformed genus as well as its true-good-beautiful genus (both being real art), and that the constructive Reason and Sentiment are continually calling on us to reject the false-evil-deformed, and to choose the true-good-beautiful. A trusty

guide to aid in this choice is especially needed to controvert the delusive assertion of that school of writers on art who proclaim the false gospel of "art for art's sake," started in our century by Schiller, and perverted by his sensual followers, who would separate art from morality—often for the purpose of infusing into artistic forms an immoral content. With Schiller (*Æsthetic Letters*, xxii) it was a philosophic dogma, *that by the form the master abolishes the subject*. The sensual school of writers identify the technical element with art, and claim that the artistic technical form, irrespective of its ideal content, ranks the work of art as a cultivating agent, and that the false and evil ideal content is to be either accepted or ignored by the cultivated for the sake of the art-technique, which is really the material element only. This leads them to defend the artistic theatre as a whole—the moral or immoral content does not count; culture looks only at the artistic technique of origination by the author and of interpretation by the actor. This position leads to the defence of technically artistic fiction, even if it present the realism of beastly humanity, artistic sensualism, and deviltry of all sorts. It leads to the defence of the representation of nude physical beauty, on the ground that what is not permitted in actual life, may be represented by realistic art, and redeemed from the evil of sensualism by the purifying influence of art.

A philosophy of art is needed also to refute the claims of the ideal school of the horrible, of deformity, of the comic and the grotesque, which correlative æsthetic principles it would substitute for and identify with their opposites, sublimity and beauty and the picturesque. This school would make itself to be a social regenerator instead of a degenerator, and would call itself true because it is real. Finding in humanity this idealism of imperfection, it claims that to represent it realistically is to produce an art that is a true elevator of the race—thus following the ideal reasserted in our time by Goethe, which would regenerate and save man through the experience of evil. If evil were always clad in garments of darkness and deformity, it would be easy to detect; but the most dangerous attacks of evil on human virtue are insidiously made under the stolen garments of light and beauty, and one has to learn to detect the internal and ideal deformity and

immorality of the most seductive forms of sensual beauty, which appeal to our defective human nature, and offer gratification to its evil desires under forms which have been accepted in the so-called good society of the epoch. In every individual there are a mother Eve and a father Adam ready to be seduced by the serpent if he be clad as an angel of light. The temptation of a seductive charm is addressed to inborn sensualism; and, if not guided by reason or by true forms of sentiment, the soul is in danger of yielding itself to the sensual-beautiful, the seductive Circe of art, which changes its lovers into swine.

The personal-psychologic question with regard to a work of art becomes: Does it elevate the mind or edify the soul? Not, does it suggest new thought? but, is this thought constructive or destructive, is it elevating or degrading? Not, does it profoundly affect the feelings? but, what is the quality of the feeling excited? Works of art are too often estimated by the amount of originality and talent they show, by their psychologic intensity and effect on the feelings through sympathy; instead of being judged by the quality of the experience and by the relative value of the faculty of the mind and the emotion of the soul to which they appeal.

If human nature were perfect, harmonious in its want, unitive in its life, natural selection by instinctive want might be a true law of life; though, even in that case, it would be true only by union with and subjection to true reason. But human nature is imperfect and discordant, has affinities for both truth and falsehood, for both good and evil, for both beauty and deformity—has capacities for degradation as well as for elevation, and is always moving in the one direction or in the other. Furthermore, in many natures (from both heredity and environment) the affinity and capacity for falsehood-evil-deformity is more powerful than that for truth-good-beauty—in some cases even has possession of the nature. We must therefore insist on rational judgment *versus* feeling; for, though feeling may suggest the want or inclination, reason must determine whether it be a constructive or a destructive want that claims to be gratified. When, as the law of life, natural selection by instinctive want takes the place of the judgment of the reason, the dictates of religious and moral sentiment, and the conscious choice between right and wrong princi-

ples, the individual is obeying the command of a spontaneity which may be the destroyer of his life. We are familiar with the destructive manifestation of the nutritive and sexual instincts, which, by their unbridled gratification, destroy so many physical natures, but we do not so readily recognize the destructive power of that craving for literary and social stimulants which destroy the vital functions of the mind and will by a more subtle and deeper way of working.

True appreciation of art can exist only when the judgment is guided by a real knowledge of the artistic principles which operate in the production of the forms of art, and by a knowledge of the laws which regulate its history. This guide is æsthetic science, or the philosophy of art. This science must be comprehensive in its field of vision, and should ascend above the limitations of individual preference to a universal and disinterested point of view from which to characterize, classify, relate, and explain all those types of art which have vindicated their right to exist and their psychologic relation with man, by their establishment and historic succession, as the embodiment of the æsthetic consciousness and productive power of their epoch. This science must teach us to qualify and distinguish each one of the principles of art: to distinguish Sublimity from its opposite, the Horrible or Terrible, Truth-Good-Beauty from Falsehood-Evil-Deformity, the Picturesque from the Grotesque, so that we may detect the presence of these principles in works of art, and see into the real nature and psychologic significance of the representation by getting at its ideal content. It must teach us to separate these generic principles of artistic reality into their opposite spheres of ideal causality, and to recognize the specific limits and boundaries of the distinct principles in each of these opposite spheres: placing on one side the constructive principles of art, Sublimity, Beauty, the Picturesque, which constitute the spirit, the soul, and the body of constructive ideality, and include the ideas of congruity and unity, law and order, harmony, rhythm and repose, grandeur, simplicity and purity, wisdom, love and constructive power; and placing on the opposite side the destructive principles of art, the Horrible, Deformity, the Grotesque, which constitute the spirit, the soul, and the body of destructive ideality, and

include the ideas of incongruity and diversity, lawlessness and chaos, discord and monstrosity, duplicity, obscenity and mere-tricity, guile, hate and destructive force. It must recognize the intimate relation (both normal and abnormal) between Sublimity, Beauty and the Picturesque, as coöperative principles in constructive art (as well as the perverted forms in which they appear in epochs of decline), and the intimate relation between the Horrible, Deformity and the Grotesque, as coöperative principles in destructive art, which includes all those forms of Tragedy and the Horrible, and of Comedy and the Ludicrous, which are shown to be the product of coöperative aesthetic principles.

Æsthetic science must teach us, also, to recognize the different art-ideals which originate in different classes of human consciousness and conceptions of primary causality, and constitute distinct points of view, under one of which every work of art is to be classified, because this ideal characterizes its significant content, and the ideal point of view under which the artist worked in his construction of it. We must distinguish the point of view from which the ideal of Deformity is presented—whether from its own standpoint or from that of Beauty. That art which presents Deformity from its own standpoint is destructive, because its point of view is false and evil—it knows neither itself truly nor its opposite Beauty, but identifies itself with Beauty. That art which presents Deformity from the standpoint of Beauty is constructive, because its point of view is true and good—it knows itself, and sees and truly knows its opposite, Deformity, which it presents in all its detailed opposition of falsehood-evil-deformity. The art of Beauty sometimes presents itself alone, sometimes presents itself and its opposite, Deformity, but for the purpose of separating it from Beauty, and presenting Beauty and Deformity as opposite ideals. We see this in all dualistic systems of theology, in the Bible, in early Christian art, in the epics of Dante and Milton. In the history of Christian civilization, the ideal of Deformity has gained power in the domain of art, and the ideal of Beauty has become perverted and finally denied by a monistic idealism, founded on Deformity, which reigns in art from Philosophy to Painting, in the incorporation of the

æsthetic principles of horrible and grotesque Deformity, coöperating with a perverted naturalistic and materialistic beauty.

The philosophy of art is not in the interest of theoretic truth alone, but is also a practical guide in the affairs of life. It furnishes a basis for historic judgment of the social principles at work in all periods of civilization, it being impossible to interpret history without a knowledge of the ideal principles which are the psychologic causes in its production. It is necessary as a guide in the separation between opposite orders of art—between the art which is true and constructive, elevating and purifying, and the art which is false and destructive, depraving and corrupting. It aids to controvert the different forms of destructive thought: (1) it controverts the technic school of sensual realism, whose motto is "Art for art's sake," and who would make art consist in perfection of technique, which is made to cover a multitude of sins in the ideal content; (2) it controverts the false gospel of the pessimistic and nihilistic-supernatural ideal, which is the destructive factor in civilization; (3) it controverts the current pantheistic, naturalistic, and material theories of philosophy and religion and politics, which dominate all forms of art, especially the claims of the critical, logical and pseudo-rational intellect in its assertion of the natural ideal, and the claims of the realistic and technic intellect in its assertion of the material ideal; both of which combine with the destructive-supernatural ideal in a common enmity to Christian Theism and the constructive-supernatural ideal of Christian civilization.

ÆSTHETIC DUALISM.—The chief obstacle to modern æsthetic science is that it has been founded on a monistic philosophy, and therefore recognizes Beauty to be the only art-principle, attempting to explain all kinds of art as momenta or determinations of this one principle—Beauty. The evident presence, in works of real art, of deformity or ugliness, of the horrible, and of the comic or ludicrous, has led German theorists of our century, and their followers, to the monstrous conclusion that ugliness, the terrible, and the ludicrous, together with the beautiful, are particular manifestations or successive momenta of a pseudo-universal principle of beauty. This recognition is not from the point of view of a merely superficial inconsistency, but is in the interest of a

false idealism, which aims to confound opposite ideas and things in a principle of chaotic identity—the principle which is at the basis of false idealism in all ages. These theorists are preternaturally blind to the proposition, so clear to ordinary minds, that a principle which evolved such opposites as the beautiful, the deformed, the terrible, and the ludicrous, could not be named *Beauty*, neither could they be defined under any one term, for even the word Identity implies and involves the opposites identified.

That all art is not the art of Beauty will be seen by the slightest reflection on æsthetic law. Beauty is the symbol of unity and harmony and order, and it demands Congruity as its law—symmetrical proportion and consistency among the ideas represented and between the elements of the art-form, as well as between this form and the ideal to be signified and expressed by it. But there is also an art of Deformity that is the symbol of diversity and license and chaotic discord, which demands Incongruity as its law—unsymmetrical proportion and inconsistency between the parts of the art-form and between the ideas expressed and the form of expression, as well as an incoherence and distortion and absurdity in the ideas themselves—such is the art of the Horrible and of the Comic. Discord and license and disorder rule in this art of Deformity, and constitute its very being; and this lawless art is so predominant that it is quite usual to characterize all art and all beauty (which are treated as equivalent terms) as the child of a so-called free but really licentious fancy.

The most casual observation of its works shows that art is not the representation or manifestation of beauty alone; in fact, it is oftener the representation of deformity, either side by side with and opposite to beauty (in the same work) or as a sole ideal; and it is usually the deformity that is the more real, and therefore the more artistic. The tragedies of Aischylos and Shakespeare, are they not art? The *Inferno* of Dante and of Milton, of Jakob Böhme and of Swedenborg, of Luca Signorelli and of Michel Angelo, the Medusa of Leonardo da Vinci—they surely are art; but who could say that they are representations of beauty? It is the reality of their representation of spiritual deformity, death and disorder, depravity and hate that makes them great works of art; and as such they are opposite to beauty, the essence of which

is spiritual life and order, purity and love. The value of these great works of art consists in their artistic reality, in the complete success attained in the incarnation of their idea; not in beauty of idea, for the ideas thus presented with artistic reality are ideas of deformity.

It is the same with that realm of art which is so intimately related to the imperfect side of our nature—the Grotesque, the Ludicrous, the Comic. It is real art, but it is founded on the law of incongruity, of falsehood-evil-deformity, and so often appeals to our enjoyment of obscenity and meretricity, of *double entente* and violent contrasts, as we see them in the great works of Shakespeare and a host of artists of the same type. All this art comes under the law of Deformity, for it is opposite to the congruity, simplicity and purity, the grandeur and elevation which belong to Beauty. In the art of painting, we might cite the Early Dutch School, which presents, in its greatest masters, examples of vulgar obscenity and meretricity, executed with complete mastery of idea, form, and color. This is an art which "holds up the mirror" to the vulgar, obscene, and meretricious type of human nature with a reality and mastery equalled only by some of Shakespeare's most famous comedies; and it gives a much clearer expression of ideal Deformity than do the nudities and refined meretricity of idea of the French School of our time and its imitators, which work from the same æsthetic principle.

It is, therefore, not science, but confusion of thought, to say, as do many German philosophers, that the horrible and the sublime, the ugly and the beautiful, the satirical and the ridiculous, are momenta or particular forms of a pseudo-beauty—such a statement is of the extremest irrationality, and is impossible to true thought. It is like saying that evil is a particular form or manifestation or momentum of good, falsehood of truth, the infernal of the divine; that the Devil is a particular form of God, darkness of light, death of life, etc. Some writers are so vague in their thought, and some are such devotees of confusive thought, that they cannot see that artistic reality in the presentation of ideas of deformity does not constitute beauty, and they therefore rank such works as phenomena of beauty. A good psychologist should at once recognize the opposition between the ideas of Beauty and thos

of Deformity from the opposite nature of his own experience, because opposite ideas appeal to opposite faculties of the mind and opposite emotions of the soul, and, in general, produce opposite conditions of consciousness. Ideas of Sublimity and Beauty elevate and expand the mind and soul to their highest possibilities of experience: ideas of Horrible Deformity depress and paralyze the mind and soul with terror: ideas of Grotesque Deformity (including Wit and the Ludicrous) appeal to the lower side of our nature, contract the mind and soul to their lowest possibilities of experience, and excite to conscious activity its (perhaps) dormant depths of imperfection.

The subjective testimony of our nature proves the existence of these opposite genera of art. We perceive within us two natures—one, the perfect side of ourselves (the angel in us), to which appeals the art of Beauty and Congruity, of purity and simplicity, of elevation and grandeur and repose, of creative wisdom and love and power: the other nature, the imperfect side of ourselves (the demon in us), to which appeals the art that presents the terrible and destructive forces of supernatural existence, of man, and of nature, the art of Deformity and Incongruity, of Wit and the Ludicrous, with their false and impure and malevolent elements. The Dionysiac and Erotic phrenzy, the Silenic and Satyric beastliness, represented in Greek sculpture and vase-painting, cannot be denied artistic reality in a directness of representation of the ideas of deformity and grotesque. We deny the assertion, that Greek art was characterized by beauty alone, with its attributes of harmony, serenity, repose, purity and simplicity, because Greek art and all art is subject to the law of duality of ideal, and the law of historic degradation. The Greek consciousness was in an especial manner dualistic, as was the idealism of all antiquity: the religion of Babylonia and Egypt, of Assyria, Persia and Greece, and all polytheistic religions, divided their divinities into opposite camps, the supernal and the infernal, and their art, being founded on this dualistic theogony, represented opposite ideals and psychologic attributes. The constructive and theistic period of Hellenic civilization is distinctly dualistic. We find opposite orders of mythology and divinities, opposite art-ideals and types of social law, even opposite Greek races, as permanent represen-

tatives of these types. It is in the scientific and humanistic period of Hellenic history that the monistic principle appears and produces that confusion in myth and art-type of divinity, that inversion of ideal content and confusion of opposite ideals, which characterize all degenerate and destructive periods; presenting the same succession of types of consciousness that we see in Christendom.

If we recognize Sublimity and Beauty to be real æsthetic principles and causes of artistic production, the recognition of artistic duality is a necessary consequence: that is, we must recognize Deformity as a real principle of art and cause of artistic production. Deformity is not defective Beauty, it is the opposite to Beauty. Beauty, with its inseparable elements Truth and Good, cannot alone be the agent in art, as we find it, including as it does the Horrible, the Deformed, the False, the Evil, the Impure, the Grotesque, the Comic, the Ridiculous. If the universe of art be conceived to be produced or governed by one principle, and that the principle of Beauty and Perfection, there would be nothing in art (from Philosophy to Painting) but Perfect Unity, Symmetry, Order, Sublimity and Beauty. The very idea of Beauty is contradicted by conceiving it to include implicitly its opposite, Deformity, and all its servants of imperfection, which in certain periods are the agents in the bulk of artistic production. If any principle or entity be conceived to evolve its opposite, it cannot be truly named; for its definition should include the possibility of this evolution and the primary qualities of the thing evolved. If the Sublime can evolve the Horrible, or Beauty can evolve Deformity, either by diminution, defect, absence, privation, or as its manifestation, self-revelation, actuality, or as one of its momenta, then what is termed sublimity and beauty is falsely named, and the posit is denied by its own implication. The art of real Beauty is always true and good, and true art is always good and beautiful. Where truth and good are found, beauty must be present as the higher and constructive third. Some writers have made the artificial distinction between truth and beauty, that Science is the exponent of truth, and Art of beauty; but the truth of Science is of an order different from the truth of Art; and it is either a licentious or a fictitious beauty that has not truth for its co-worker.

Every work of art, as the condition of individuality, must include as its ideality either the co-active unities, truth-good-beauty, or the co-active diversities, falsehood-evil-deformity. As these tri-une idealities are spiritual opposites, we cannot, in any work of real art, find them combined in a mixed form. A pseudo-beauty which is not true and good must belong to the art of deformity. A work of art with an immoral idea is deformed, whatever false garment of the beautiful it may put on—it is deformity in beauty's perverted form, which makes the falsehood worse because more deceptive. A principal reason for error on this point is the misconception of truth by identifying it with reality; whereas falsehood-evil-deformity are as real as truth-good-beauty: they are opposite realities, and nothing in art, from philosophy to painting, can be really understood without knowing this reality of opposites, and applying the knowledge in the interpretation of phenomena. In all the works of the Most High, "Life is set against Death, and Good is set against Evil," for He placed, in the creation, images of death and evil as well as images of life and good, so that the invisible nonentities of the Not-god might be understood by the things that are made, as well as the invisible things of "His eternal power and Godhead"; for Jehovah created darkness and evil as well as light and peace (*Isaiah*).

In this probationary state of existence man is called upon to choose which ideal he will serve. He must serve, but he cannot serve two masters; and these opposite masters are offered to him with the command: "See, I have set before thee this day life and good, and death and evil;" "choose you this day whom ye will serve." This duality of masters obtains in the other forms of art as well as in Religion, and we must be able to intelligently distinguish and choose between them. If one choose for his master (with eyes open and for indulgence of personal inclination) the prince of darkness and sensuality, let him acknowledge that such is his act, and not pretend to see, in the deadly and sensuous images of Satan, the likeness and image of the Living God.

PSYCHOLOGY OF ART.—One of the chief obstacles to a philosophy of art has been the lack of a comprehensive science of mind which shall provide for and explain the different historic and persisting types of consciousness, thought, and art-ideals. An ade-

quate psychology, or science of mind, is indispensable to the study of art and the intelligent analysis of its works. *Æsthetic* science must be conceived in harmony with psychologic science (which is its subjective basis), and be carried along on parallel lines with this science, and even as a part of it, in order to present the subjective side of art, and to establish the relative value of the different departments of artistic experience. Without this scientific knowledge of the human mind, there cannot be a true philosophic judgment of works of art; for this psychologic knowledge is the first condition of this judgment in its determination of the comparative value, dignity, and rank of the work, by establishing the place, in the mental order, of the faculty to which belong the ideal content and the construction and appreciation of the work of art. The species of artistic beauty or deformity to which any work of art belongs must be related to that psychologic species of beauty or deformity in the various departments of the mind which is the psychologic cause in its production, and the faculty by which others than the artist observe, recognize, and appreciate its artistic quality and ideality.

According to our psychologic system, the general divisions of the Mind are (1) the Reason, which sees the universal ideas of Being, Nonbeing, and Becoming; (2) the Sentiment, which is intuitive and conceptive of the supernatural relationships of man; (3) the Intellect and Affection, which constitute the sphere of Thought and Feeling: and these three regions personify the mind, or constitute its spirit, soul, and body, in the normal condition of which the body is subject to and productive from the soul, and the soul to and from the spirit; while each of these regions is dualistic in its constitution, *i. e.*, is intuitive and conceptive of both truth-good-beauty, and falsehood-evil-deformity, is both constructive and destructive. We find, in the Reason at the summit of the mind, opposite generic principles; on the one side, Truth-Good-Beauty; on the other, Falsehood-Evil-Deformity; and these stand for opposite universal ideals or genera of vision, each of which becomes distinguished into many species as it becomes ensouled by the Sentiment, and incorporated by the Intellect in Thought. Thus, we find the Universal Beauty and Deformity of the Reason; the Philosophic and Ontologic

Beauty and Deformity of the Philosophic Sentiments; the Religious and Theologic Beauty and Deformity of the Religious Sentiments; the Moral and Political Beauty and Deformity of the Moral Sentiments; and many species of Psychologic Beauty and Deformity in the Intellect and Affection; and it is only by recognizing these divisions of the Mind, each with its distinct order of intelligence, and these opposite ideal principles as typical psychologic causes, that we can explain the phenomena of Philosophy, Religion, and Politics; of art, consciousness, and life.

Art is a universal intellectual form or organon conceived and constructed by the understanding, which we conceive to be constituted an intellectual totality through and in which Truth-Good-Beauty, on the one hand, and Falsehood-Evil-Deformity, on the other, become incarnated in Thought. The intellect is the great laboratory of thought, an incorporating sphere in which all ideals, laws, and phenomena realized by the Reason and by the Sentiment (which constitute the spirit and soul of the mental organization) are incarnated in sensible images and forms of thought founded in intellectual experience—an experience of which sensation is the external and material element, intuition the internal and individual element, inspiration and reflection the universal and creative elements. It is necessary that this incarnation and definition in thought should be realized before the rational and sentimental ideals, laws, and phenomena (which constitute the highest sphere of human intelligence and knowledge) can be intellectually comprehended or understood even by the creative mind itself or be communicated from one mind to another, and by other minds be either apprehended through external representation or be understood through reproductive reflection. We conceive that this intellectual totality is constituted in the tri-individual form of spirit, soul, and body, corresponding with the form of the entire human mind and with the entire personality of man; and that these three spheres of intellectual realization are personified by three great intellectual incarnating powers, Imagination and Fancy and Technics, which are the constructors of the spirit and the soul and the body of Thought, of its universal and its individual and its material elements and departments.

It has been very common among writers on art to separate certain forms of art from intellectual consciousness, but this error arises in false views of the nature of thought (that is, of intellectual consciousness), by which it is confined to the logical form of thought, and the laws of logic are identified with the laws of thought; thus excluding the Imagination, with its analogies, from the intellectual nature, of which it is the highest and most important factor; as well as excluding the Fancy (with its external and unreal similitudes and resemblances), which is, of all intellectual faculties, the most prolific in thought. Some have gone so far as to identify thought and language, thus excluding from the Intellect all except linguistic forms of thought. But it must be borne in mind that language, though an important instrument in the expression and definition of thought, is only one form of thought, and that there are many forms of thought in Art and Science and Industry that are not and cannot be expressed in language. All works of formative art (architecture, sculpture, painting) may be most definite forms of thought, as complete as are the literary arts of expression (language, poetry, music). Under this identification of thought and language, much of the arts of religion and government would be erroneously excluded from thought.

Some writers would confine the experience of art to the emotions and feelings, excluding thought. But the highest artistic experience cannot be realized without artistic thought as well as artistic feeling. Neither the artist who creates nor the observer who may merely perceive can realize even artistic emotion without intellectual presentation; for it is the intellectual realization of the ideal content in a work of art (either apprehended or comprehended) that constitutes the real perception of it by the mind, and makes possible a true responsive emotion of the individual consciousness on the presentation to it of this mental perception. These writers may be misled through not recognizing the spontaneity of some forms of artistic thought, which are so contrary to logical thought as to give them the appearance of emotion—but emotion is an activity of the soul (not of the mind), is an act of individual consciousness cooperating with the artistic Sentiment and Intellect.

ART IDEALS AND STANDPOINTS OF THOUGHT. — An important requisite for the interpretation of human thought, including art, is a true theory of human intelligence and knowledge which shall provide for the recognition of the different types of consciousness and intellectual standpoint from which primordial being and the objective world are viewed, because ontology or the science of being must always furnish the basis of thought.

If we study the natural history of thought as we would study anything in Nature, with the idea of classifying its phenomena, we shall find that we can ordinate these phenomena under four ever-recurring types, resulting from distinct universal ideals and intellectual standpoints, which are founded upon different conceptions of primordial being, of the origin of the world, and of the relation of the world to primordial being: these are the theistic-supernatural, the natural, the material, and the nihilistic-supernatural ideals; and we have so named these ideals, because they respectively posit, as primordial being, the Personal God, Nature, Matter, and the Impersonal Nothing. These ideals must always persist in human thought, and always conflict: they are the great psychologic personages who construct and destroy civilization.

The two great realms of consciousness are the theistic-supernatural, which is the Extreme Right, and the nihilistic-supernatural, which is the Extreme Left: these are founded on constructive and destructive root-principles which constitute the opposite poles of this universe of intelligence and of thought. The positions midway between these opposites are the natural standpoint, which is the Right Centre of consciousness, and the material standpoint, which is the Left Centre; and these midway positions are merely half-way houses on the way from dormant or diseased constructive-supernatural root-principles to those which are radically and offensively destructive. We have so often seen the road travelled, in all times and in all countries, but especially in our century, that we cannot be in doubt (if we at all regard the teaching of history) that, after leaving the camp of the extreme right, the theistic-supernatural realm of consciousness, there is but one road, that which leads to the nihilistic-supernatural, or the extreme left. This is clearly evident to all, in political life, as organized in the popular assembly of every nation; for they all

are alike in including parties representative of these types of political thought, which are only special forms of the universal points of view here presented. We may see these same types, related in the same order of mental progress, in philosophy and religion, in the literary arts, and in the formative arts, based on these separate ideals and standpoints.

These persisting types of knowledge and points of view are exclusive of each other, are found always in conflict, and always reproduce after their kinds in distinct lines of historic development, each with its limitations and well-defined principles. These types or standpoints of intelligence are psychologic norms which form different genera and species of knowledge, each of which claims dominion in the universe of thought, and all of which are needed to cover the diversity of human experience, and have shown their psychologic right to exist by their persistence in human history. The first requisite for understanding the significance of any phenomenon is to classify it under its generic and specific norm of ideality and thought, and thus know the principle which has caused it.

All attempts to interpret the phenomena of human thought and experience as the historic manifestation of one principle and one system of ideas—or as the failures and the more or less successful attempts to actualize any one general principle and system of ideas—are utterly groundless and lead to confusion of thought, because these phenomena are produced by the causative operation of these several classes of ideality, which are fundamental norms of human nature, standpoints of consciousness, and psychologic causes that are antagonistic and exclusive of each other, and each of which attains its own significant manifestation. The true method of interpretation of the history of human experience is to conceive these ideals and connect them with their manifestation in generic and specific types of thought. It is by this means alone that relative order can be produced in the chaos and conflict of natural manifestation; while the result of applying to this chaos the law of monism is to destroy the significance of words and ideas and to confound language.

Dualism and discretion are laws of the natural world; and the history of thought can be explained only by recognizing these op-

posite genera and several species, each of which has distinct and different ideals of consciousness, species of knowledge, and laws of certitude, and includes a conscious aim to actualize its own ideal, as distinct from every other, in its corresponding type of thought. These ideals possess appropriate characteristics, limitations, and boundaries; and they are called points of view or standpoints in the consciousness because they are distinct kinds of mental eyes through which, or according to the perceptive laws and power of which, all things are contemplated. Some one of these classes of consciousness dominates every historic epoch and each individual, marks and names the total condition—the kind of development and perceptive power of all the mental faculties—and predetermines the knowledge and opinions of this epoch and this individual in all spheres of thought. This is so true that, given the mental standpoint and consistency of thought, one may predict the intellectual conclusion or judgment on any subject; in fact, the conclusion is necessitated to follow from the point of view of the ideal of causality, conception of reality, and theory of knowledge which constitute this standpoint.

We find both subjective and historic evidence of the existence of these psychologic types, because these separate orders of human consciousness spread throughout the mental organization, and constitute a four-fold possibility or potentiality in each department of the mind. These kinds of perception and judgment are distinct, do not merge into but conflict with each other. If I interrogate my own consciousness, I find them all there; and I find that the chief disturbances of my peace of mind arise from the conflict carried on between these types of intelligence in my own mind; and that, when my supernatural intelligence operates, my experience is of an order entirely different from that of my natural intelligence, over which it is continually called to maintain its supremacy—different in its objects and in its laws and in its kind of knowledge, different in its point of view and in its method of thought. At times, my natural as well as my material consciousness asserts itself in opposition to my supernatural consciousness and belief, which at this time may be weak or in abeyance; and I clearly recognize this state of weakness and scepticism, and

the complete analogy of this temporary and partial condition of my own consciousness with the permanent and controlling presence of these natural and material types of consciousness in other persons, where one of these types has a supreme and even unimpeded operation (as in the natural man and the material man), bounding the mental horizon of these persons with an exclusiveness of other standpoints which convinces them that these other points of vision have no reality and therefore do not exist.

If we investigate the history of thought, we find that these standpoints are the psychologic personages who rule the affairs of men; and that the reality of interpretation of any period depends on the true conception of the point of view from which its characteristic experiences are realized, and in the light of which it interprets the world of thought and experience, both past and present. One of these standpoints so predominantly characterizes every period of the history of a people as to constitute a distinct type of civilization. In estimating any work of art, we should get at the universal ideal and intellectual standpoint from which the work is constructed; for this will enable us to rank it, will give unity to our interpretation of it, enable us to explain it by itself and to detect its inconsistencies. It is the same, whatever be the subject under consideration; whether it be philosophy, religion, politics, or any of the kinds of literary or of formative art. By this classification we may give reality (though relative) and place to every species of experience that has been established in the historic order of civilization; we may conceive the ideal meaning and artistic type of each species, characterize it, and recognize its factorship in the successive development of the human consciousness.

The philosopher truly says: "A work of art is made what it is by its ideal content." Now, what does this mean? It means that the ideal which the artist had in mind (and which he incorporates in thought in order to define it to himself and to present it to other minds) constitutes the causative principle of this work of art; and that the artistic form with which he clothes this ideal is the external means by which the ideal is expressed in actuality—is defined in thought to his own intelligence, is com-

municated to the minds of other men, and comes into the consciousness of all capable of perceiving it.

This ideal content may be of different orders of thought. I. The artist may have in mind only material motives and ideas to express, and either to imitate the external appearance of things or to conceive the material ideal of the species, and the unactualized possibilities of material natures—to consider merely the material structure, qualities, and functions of things. The artist thus produces a form of material art (whether ideal or imitative and realistic) which treats his subject (even the human subject) as merely a body, as to its very entity—whether he present the actual appearance of things or the material ideal and possibilities of the species—in conformity with the axiom of the materialist: *Everything that appears to the senses and the material consciousness is real; and everything that really is so appears.*

II. The artist may have in mind a naturalistic motive or idea to express, and to represent either the apparent nature of objects (some actual natural experience or observation of mind) or some unactualized form of natural consciousness, in a corresponding artistically expressive physical form; that is, either to express the internal and psychologic appearance of things or to conceive the natural ideal of the species, their individual and characteristic structure, qualities, and functions; and thus to produce a form of individual, naturalistic, psychic art, which treats his subject as a natural soul, possessing only a natural constitution and consciousness, the appearances of which are conceived to be identical with its reality—thus conforming to the axiom of the naturalistic standpoint: *Everything that appears to the natural consciousness is real; and everything that really is appears to the natural consciousness.* This is the pseudo-rationalistic standpoint.

III. The artist may have in mind ideas of universal or of supernatural significance, ideas of ontology and theology, of absolute being and the spiritual relations of man; or he may represent the supernatural side of human nature, either its actualities or the possibilities involved in it, conceiving some unactualized supernatural capacity of man; that is, he may express the philosophic reality of things, their ideal structure, qualities, and functions, and thus produce a form of universal art which treats

his subject primarily as a supernatural or representative-spiritual being, possessing a supernatural nature and consciousness, the reality of which consists in its relation with and consciousness of supernatural and spiritual existence—in conformity with the axiom of the supernaturalist: *All reality and truth are in supernatural and spiritual existence, and in either the supernatural or the spiritual consciousness, which are foolishness to the natural and material mind.* As the supernatural appears in opposite generic ideals (the theistic and the nihilistic), we find four species or kinds of art, produced from distinct ideals and standpoints, which must always persist in human history; and we may classify all works of art under these four heads, as characterized by one or other of these ideals.

These four standpoints of human consciousness appear in the history of thought, sometimes alone, sometimes side by side, sometimes in successive manifestation. In successive supremacy, they appear in each cycle of development in the order of enumeration, beginning with the theistic-supernatural ideal on a plane of consciousness higher than it reached in the preceding period, thereby realizing that general progress which is necessary to a state of civilization. Thus—though the law of development in this cycle is that of degeneration from the theistic-supernatural (1) to the natural, (2) to the material, and (3) to the nihilistic-supernatural ideal, while in each of these periods there is a special degeneration in the development of each type—in the general cycle the law of birth and of revelation produces the regeneration and elevation of the consciousness and life on a higher plane of experience. We find, then, in the history of every one of the products of human intelligence—in Art (from philosophy to painting), in Science, and in Industry—these four general ideals, for we find in man himself these theistic-supernatural, natural, material, and nihilistic-supernatural types of consciousness; and each individual is characterized by the supremacy of some one of them, which thus constitutes the general standpoint from which he contemplates all things. The most intelligent and clear-headed men are those in whom one of these types pervades and characterizes his entire mental constitution, giving him an innate unity of vision and consistency of thought. Furthermore, we must expect that

these distinct types of consciousness will persist so long as humanity exists: they will always conflict, and the most so when in their normal and healthiest condition. If any one of them appears to come to an end, it is only dormant for a season and will return to activity and reproduction at its appointed time. All attempts at fusion by demolishing these landmarks of thought mark the temptation of Naturalism and Materialism and Nihilism addressed to a weakened and demoralized theistic-supernatural insight.

The principal cause of conflict and confusion in thought is the failure to recognize and distinctly conceive the theistic-supernatural and the nihilistic-supernatural as opposite generic standpoints and psychologic causes, and to recognize their self-consistency and their necessary persistence in thought, and therefore their right to exist in this natural world of opposites. This endless conflict is increased by the failure to recognize the supernatural, natural, and material ideals as separate and specific standpoints and normal types of thought; by the failure to see the partial character of actual experience; and by the claim that each standpoint makes—that its own ideal is generic and universal and covers the entire ground of reality. This self-assertion of one or of another partial ideal claiming to cover the whole ground of reality in thought carries with it the denial of all reality to other species of consciousness. Relative peace in the intellectual arena can be made only by recognizing distinct genera and species in the kingdom of consciousness and of thought; genera and species which are quite as distinct as are those in the human, animal, vegetable, and mineral kingdoms; and which as distinctly propagate under laws of generic and specific continuity, increase and multiplication, each producing its like in the world of ideas; each having a definitely limited field, denying the reality of its neighboring genus and species, and making continual effort to destroy it. Conflict, war, extermination is the law of life to these ideals and standpoints of thought; yet they all must continue to exist in order to furnish an environment, a spirit, and a specific form for the inevitable and continuous reproduction of these types of human consciousness in this world of partial experience, of unreal life, of discordant thought: *i. e.*, it is a natural world in which we exist. The maintenance of the conflict is a sign of

generic and specific vitality in each; and the drawing together of differing opinions now to be observed is a sign of indifference or of blindness, not of real union; because, in reality, these points of view are mutually exclusive, and this drawing together is the result of loss of separative insight and of reality in thought. The contest between Theism and Nihilism is radical to life, and their pseudo-union in Liberalism is a sign either of torpidity, or of death to a Theism already devitalized by a pervading Pantheism.

We find all these four points of view in disorderly manifestation during certain transitional epochs preceding new psychic births, such as those of the Christian era, of the Protestant period, and of the present century, when the new type of civilization has not yet been constructed, while the old types are losing their hold upon the people through loss of vitality in institutions and loss of insight by the people. This complex and disorderly manifestation must continue until the new constructive ideal has reconstituted social institutions, and comparative order has become established in the universe of thought. These periods of transition can be interpreted only by recognizing the presence of different and conflicting types of thought, which persist historically in continuous intellectual species, but which at such periods come into the consciousness with renewed perception and activity, greater intensity and insistence, and more expanded development. Although these four ideals are mutually exclusive and never unite in a single act of real consciousness, and though the theistic-supernatural is in conflict with the three other ideals, yet, in these transitional epochs, the nihilistic-supernatural ideal forms a coalition with the natural and material ideals, because it is (unconsciously to them) the causative principle of their common opposition to Theism. The nihilistic-supernatural ideal thus uses the natural and material ideals and types of civilization with their gradually disintegrating forms of intellectualism (rationalism, doubt, criticism, and skepticism), in its destructive work and in its efforts to establish a pessimistic humanity on the ruins of theistic civilization, whether this humanity take the form of the *bête humaine* of the material ideal or of the *diable humain* of the destructive-supernatural ideal. It is only by a new birth of the theistic-supernatural ideal and the reconstruction of Christian

civilization, as the City of God, that any real opposition can be made against this material Babel, or City of Satan.

As we find in the dominant philosophy of our time either a realistic materialism or a transcendental pessimism—so, in literary and formative art (especially in poetry and fiction and painting), we find a preternatural realism of the ignoble and the horrible side of human nature, which educates and develops the Satanic image in man. Hitherto the mission of the art of our century, from Philosophy to Painting, has been to educate and develop this destructive side of the human constitution as well as the lower phases of its possible experience; and the only way that art can be reborn onto a higher plane and again become the handmaid of the Christian religion, is that Christianity itself should be born from on high and again enlighten the world of humanity with the reflected light of God—then shall Truth-Good-Beauty, the image of the Divine Logos, again become the ideal in art from Philosophy to Painting, and the representative Kingdom of God be again established on the earth.

DEFINITION OF ART.—Before attempting a positive definition of Art, we will refer to some of the imperfect definitions still accepted in æsthetic circles. 1. The definition (held by so many), that art is a representation, in sensible forms, of ideas of sublimity and beauty and the picturesque, is not adequate, because the larger half of art is an embodiment of the principles of the horrible, of deformity, of the grotesque, and with greater artistic and subjective reality. 2. It is not specific to art, to say (with Hegel) that it is “the union of the objective and subjective in the human spirit. . . something inward, a content, and something outer which has that content as its significance.” This definition is too broad, for it does not distinguish art from every fact of existence: every actuality of life has an internal and an external, a subjective and objective element. 3. It is not the object of all art to give pleasure (as some tell us), for the aim of a great body of works of art is to cause pain—such as terror of destructive force, and the pain excited by the representation of death and misfortune in tragedy; while some (like the social arts and many of the higher forms of art) give satisfaction or pleasure to some and pain to others. 4. The school which makes art to be only subjective, and denies

its objective reality, removes its civilizing function and misrepresents its very nature, for art is the embodiment by the human mind of the objective reality of things both above and below itself, by means of its own subjective reality, symbolizing absolute and dissolutive reality, and realizing opposite relative reality, both actual and possible. 5. It is not a definition of art to say that it is idealism and symbolism (vs. naturalism), because, beside the art of symbolism, there is an art which is founded on naturalism and on romanticism; also an art that is founded on imitation and material realism. It is not defining art to identify it with imitation, for imitation is but the lowest function of the depraved type of art. 6. It is most untrue to say (with Edmund Burke): *No work of art can be great but as it deceives*, for this is the most superficial form even of realism. 7. It is not a true definition to make art consist in technic form, abolishing subject and ideal content (Schiller), for the ideal content is what makes it art, and gives it reality and universal significance. The definitions that art is the significant, the characteristic, the expressive, which are favorite definitions of modern writers, are both vague and insufficient, for two reasons: (1) because these terms are most suited to and are oftenest used to express only the individual element in art; (2) because no distinct art-principles are presented as the ground of reality (whether objective or subjective), and this presentation is necessary to a definition. Still, though vague and insufficient, the combined definition, that art is the significant, the characteristic, the expressive, would be nearer the truth than that which would make art and beauty to be equivalent terms, because the above terms apply to the art of the horrible, deformity, and the grotesque, as well as to the art of sublimity, beauty, and the picturesque. But it would be far from a true definition to identify the characteristic, the significant, the expressive with beauty, for the art of deformity includes these attributes as well, and much more so, as being nearer to the internal nature of man. Expression, characterization, ideal significance, all must be recognized in art; but, even then, we are far from a definition of art, for the reason that there are opposite art-principles, and that such terms as would truly apply to both of these opposites are necessarily few and vague. The definition of art must include

the presentation of these opposite principles in distinctly separate ideals: first, of the ontologic principles which constitute the objective reality of art; second, of the psychic principles which constitute its subjective reality in the human mind.

Art is the universal organon for the representation (in intellectual form, or in thought) of the total ideality of existence, both actual and potential. This total ideality of existence includes that network of principles of the unseen universe which constitutes its complex system of causality; those principles of many different orders which are the secondary causative agents in the world's productive and destructive operations; and it is the mission of art to incorporate these principles, apart from their complexity, conflicts, and confused manifestations in the natural world, so as to exhibit them in ideal and sensible form according to their single operation and normal relations. Art thus presents the total ideal capacity of the race in the various spheres of its activity: it is the supreme mode of bringing into definite and effective consciousness the highest as well as the lowest ideal capacities of the human mind: the capacity for the supernatural (or for the things above it in the scale of existence), for the natural (or for the things of its own nature), and for the material (or for the things below it): the capacity for the highest and the lowest truth-good-beauty, and for the highest and the lowest falsehood-evil-deformity—those great psychologic opposites which contest the possession of the soul and produce its regeneration or degeneration on all planes of its experience. Art is thus an objective ideal world in communion with the subjective ideal world in the mind of man: it has reality both outside the mind, as object, and within the mind, as subjective experience. As object, it is realized under its own general laws as the highest individuality in civilization, which operates upon the human race in its historic development, in its regeneration and in its degeneration. The subjective ground of art is in the dual roots of the mental organization, which are found primarily and in their most concentrated form in the opposite principles of the Reason, which is the spirit of the mind. These opposite principles are truth-good-beauty and falsehood-evil-deformity; and their ideals become ensouled and incorporated in the lower departments of the mind

—in the Philosophic, Religious, and Moral Sentiments, in the Thought of the Intellect, and in the Feeling of the Affection. This subjective ideality in the mind is the basis of the creative power of the artist, the basis of taste and of judgment, and of the ability to see in works of real art (from philosophy to painting) their ideal nature and significance, as distinguished from their merely natural and sensual appearance. This mental susceptibility to the ideality of the objective world and of absolute causes, and this artistic creative power, constitute an innate ideal capacity in the mind which arises in the microcosmic character of man's nature. The same realities which are imaged or symbolized in the great created cosmos, the macrocosmos (these realities being the absolute cosmos, God, and the dissolutive chaos or acosmos, the Nothing), are imaged or symbolized in the mental organization and consciousness of man, who is the small created cosmos, the microcosmos. These primary images and the analogic relations between God (the creative cosmos), the Nothing (the decreative chaos), the Universe (the created macrocosm), and man (the created microcosm) constitute the ideal basis of art, both objective and subjective; and to perceive and incorporate in thought these integral images and relations is the highest mission of art.

MISSIONS OF ART.—Art has three missions: it is historic, interpretive, creative. I. The first mission of art is historic—it is to perpetuate or place in permanent form and preserve for the instruction of the present and of future generations the essential manifestations of man's individual and collective ideal experience, to operate not only as records, but also as suggestive material in the ideal conception of human nature and of its unrealized possibilities. Art, in its historic mission, thus incarnates in sensible form the changes of actual life, the temporary and passing conditions, ideas, and essential manifestations of humanity in all spheres of experience—whether universal and supernatural, or individual and natural, or material and sensual; so that future humanity may not be confined, for the sources of its knowledge, to present experience (which constitutes but a small section of the circle of human life); but that humanity may work from the basis of civilization and of the world's history, being able to realize the actuality of the past as an ideal conception of the artistic faculty, even

when the individual would not be able to realize this actuality as a personal experience—for his artistic faculty enables him to see it from an impersonal point of view.

Art thus preserves the types of such high orders of human experience as human genius is incapable of realizing in periods of degradation, when Materialism and Atheism flood the human mind, and Realism governs its artistic products. In these periods, art is the ark in which are preserved the sacred ideal types, that they may again serve as suggestion and stimulus to human thought, when the flood shall have subsided and the fields of human nature shall again bring forth by a new creation from on high—when the dormant seeds of the higher fruits of human intelligence shall again germinate and bring forth fruit, and reproduce, each after its kind, in the reconstruction of Christian civilization on a higher plane of experience.

II. The second mission of art is interpretive—it is to make clear to thought the ideal significance of human realization, of the actualities or realized possibilities of human nature: to bring to light and emphasis the ideal principle and cause involved or centred in concrete manifestation; to present the reality of things which is behind their appearance—the hidden meaning which is concealed from the eyes of common sense; and to separate the opposite ideals which are found mixed in concrete nature, and present them as distinct intellectual individualities, with their corresponding laws and phenomena. This function of art applies to both past and present realization. It is most important in its interpretation of the universal ideals of the past and of the corresponding special types of thought; intellectual types which the present consciousness may be incapable of realizing as a personal experience, but which may be ideally reconceived by the artistic mind, and which are useful for suggestion and stimulus at those periods of new birth in the human consciousness when, in the revolution of the universe of thought, these ideals of the past again return into the consciousness to be incorporated in intellectual forms which shall correspond, as to progress, with the new birth of the mind and soul. This renewed perception of old ideals is accompanied by the creation of new types of thought and by new forms of individual experience; and these constitute a starting-point in the new circle of revolution, as humanity (under

the law of circularity) again passes over the same ideal longitude on a higher plane of consciousness-activity-life.*

III. The third and highest mission of art is creative—it is to conceive and to incorporate in adequate sensible form the unactualized possibilities of human nature. These are of three kinds of ideality, and require three different kinds of artistic mental power, which are represented by the man of Talent, the man of Genius, the man of Inspiration. 1. *The man of Talent and of Fancy*, through a fictitious ideality, creates those fanciful and ephemeral forms of art which attribute to things fictitious qualities, and institute fantastic relations, founded on superficial and apparent resemblances — comparing things that internally are either in discord or are without any real relationship. 2. *The man of Genius and of Imagination*, with intuitive insight into generic and specific law and relation, creates those natural and material ideals and their corresponding forms of art which present the ideal of the species—the natural types of things that the original genius has seen lying dormant in the natural man and in Nature. 3. *The Inspired Artist and man of Reason*, with prophetic vision of eternal truths, sees the universal principles of Being, Non-being, and Becoming; sees in Becoming Existence the analogies with Being and Non-being, and creates those universal institutions which represent these truths and preside over the development of man; he creates those works of art which represent superhuman causes and the relations of man to these causes, incorporating in the intellectual symbolism of the Imagination the supernatural intuitions and conceptions of the Reason and the Sentiment. The inspired creative artist is a seer, and the pioneer in the supernatural history of man: he sees the possibilities of humanity and awakens in man his dormant perception and faculty. In all constructive periods of civilization the inspired creative artist—whether he be philosopher, priest, or governor; philologist, poet, or musician; architect, sculptor, or painter—conceives and presents the norm of possible experience, and the apprehensive mass

* Such a new birth was realized at the Christian era, and again at the Protestant era; and another is to be expected in our time, as Protestant civilization appears to have run its course in the most advanced portion of civilized peoples. The historic churches of Saints Peter and Paul (Catholic and Protestant) having fulfilled their historic mission, we may now look for a new civilization which shall follow the gospel of St. John, and complete our cycle of historic Christianity on this earth.

of the people respond to this presentation and teaching by incorporating it in actual life. Thus, the highest category in the creative mission of art is to symbolize, in the natural world (with an ever-increasing distinctness and elevation as the circle of human experience revolves), that spiritual existence and those spiritual laws and ideas which cannot here be realized, but the representation of which is the vital element in the natural world and the medium of analogic relation with the spiritual. This sphere of representative-spiritual life we call supernatural, though it is necessarily an integral part of the natural constitution of created things: that which connects this constitution with its creator and with spheres of existence above itself.

With regard to the highest subjects of thought, we cannot, in the natural world, establish the simple and inflexible relations and the clear vision of spiritual science: symbolic thought, in its representation of spiritual truth-good-beauty is our nearest approach to it. It is analogic and idealistic thought that expresses this veiled vision of the Divine Logos, of which the True Reason of man is an image—the logical and realistic intellect of pseudo-rationalism is blind to this symbolism, which appeals to the imaginative intellect that created it. The logical intellect bruises its beauty with critical energy, pulls it to pieces to find out its mechanism, and contemplates the *débris* of its lifeless members with contempt, blind to the light and beauty which it has destroyed. But this is historic necessity—for, as change and particular degeneration are the invariable laws of the natural world, the inevitable result of historic succession (at the end of each great period) is to enthrone the logical and fantastic intellect, with its blind realism and its licentious fancy, in the holy places of the truth-good-beauty of the Reason and Sentiment and Imagination, which it occupies jointly with its master and ally and coöperator the nihilistic-supernatural, which is the self-conscious exponent of Falsehood-Evil-Deformity. Thank God, the natural law of universal progress is equally invariable, and we may faithfully trust that humanity will be born again from on high, and the supernatural eyes of man be again opened to the Truth-Good-Beauty of the Kingdom of God.

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A BASRELIEF FROM PHALERON.

[PLATE XII.]

A most interesting and beautiful votive-relief, sculptured on both sides, was discovered in 1893, not far from Phaleron, and was briefly described by Mr. Dragatzes in the *Hestia* of June 27th, 1893. It also forms the subject of a paper by Mr. Kavvadias in a late number of the *Ephemeris*.¹ The relief is of such artistic merit and mythological interest that I venture to add a few remarks to the excellent ones already made by the Athenian archaeologists. The marble bears on both faces a sculptured relief, and above each, under the crowning pediment, some descriptive inscriptions happily remain. Thus, we are informed that the youth in front of the chariot is Hermes, while the occupants of the chariot itself are Echelos and Basilê, though the present condition of the letters points to *Iasilê*. On the other side we find the dedication: ΕΡΜΗΙ ΚΑΙ ΝΥΜΦΑΙΣΙΝ. Other letters follow, but with the exception of the first five (which I read ΑΛΕΞΟ), they are beyond recognition. Perhaps it was the hexameter: Ἑρμῇ καὶ Νύμφαισιν Ἀλεξὼ τὰυτ' ἀνέθηκεν. The Α of ἀνέθηκεν may indeed be distinguished.

As Mr. Kavvadias tells us, we know from the *Etym. Mag.* and from Steph. Byz. that Echelos was hero-eponymous of the Attic deme Echelaidai, and that his name was derived from the marsh (ἔλος) in that deme, between the Peiraieus and the Herakleion, in which latter place the gymnastic games were held during the Panathenaic festival, undoubtedly the ancient hippodrome identified by Curtius, and close to the spot where the monument was found. As to Basilê, we know of her sanctuary between the Athenian theatre and the Ilissos (*CIA*, iv, 53^a; cf. Plat. *Charm.* 153). But, as Kavvadias remarks, we learn most about her from

¹ *Ephemeris 'Αρχαιολογική*, 1893, pls. 9, 10; pp. 109-112.

Diodoros (3.57). Basileia and Rhea were the two eldest daughters of Ouranos and Titaia (or Gē as she was called after death). Basileia excelled all her seventeen brothers and sisters in wisdom and brought them up like a mother, so gaining the name of the Great Mother. After her father's death she received the kingdom by the consent of all, though still a maiden and not wishing to marry. Desirous of leaving a successor, however, she at last married the brother who was dearest to her, Hyperion, by whom she became mother to Helios and Selene. Her brothers thereupon, through jealousy, slew Hyperion and drowned Helios. Selene, in her grief, threw herself from the roof, and Basileia, the mother, in her search for the body along the river, went wild. Helios, however, appeared to her in a vision and bade her cease lamenting, as he and his sister had become immortal and their names had been given by mankind to the sun and moon. His brothers would meet with proper punishment in time. After this dream, Basileia directs all to pay divine honors to her dead children, and forbids any one to touch her body. She then wanders about the world in her madness, playing with the noisy toys of her daughter, frightening everybody with her tympana and cymbals. All take pity on her condition, but on one occasion when some one attempted to touch her, she suddenly disappeared from view in a shower of rain and thunder, and forever after received divine honors, together with her two children. Altars were built to her, and tympana and cymbals were employed in her service.

As Kavvadias remarks, the passage summarized above seems to throw some light on our relief. The fact that Basileia allowed no one to touch her, and that when touched she vanished midst rain and thunder, strikingly reminds us of the rape of Persephone, both myths evidently referring to the disappearance of the summer verdure and the approach of stormy winter. The greatest importance attaches to the version as given by Diodoros, as it certainly seems the prototype of the Eleusinian and Sicilian myths of Korē. Demeter herself (Mother Earth, *i. e.*, Γῆ-Péa-Kyβέλη-Basίλη), according to this older story, is the victim of violence. In the later myth her daughter is substituted in her place, and the mere touch develops into a rape. The scene on the

relief represents an intermediate stage of the myth. Basilê is there being *carried off*, but her abductor is not Hades. He is the youthful Echelos. Who, then, may this Echelos be? If we turn to the Eleusinian legend, we find that Eubouleus, originally an epithet of Hades, afterwards became the name of a youthful swineherd said to have been present at the rape of Persephone. Echelos also, I take it, was originally applied to the infernal deity as the "marsh-dweller," he whose home is below the soft marshes in which men sink to rise no more. The entrance to the lower regions would as naturally be located in the marshes as in the caverns of the earth. Instead, then, of the youthful Korê and the elderly Hades, as in the Eleusinian myth, we have the matronly Basilê carried off by the youthful Hades or Echelos. On the other hand, instead of the mere touching of Basilê and her sudden disappearance from view as in the legend of Diodoros, we have Hades introduced as the ardent and violent abductor, a subject more suitable for the sculptor and artist than the older story. Indeed, it may be that to the sculptor and vase-painter are due the rise and subsequent acceptance of the later myth in preference to the former. But this is mere hypothesis.

Again, before leaving Echelos, I may venture a further suggestion, that this Hades-Echelos may be identical with the Echelos of Pausanias, who alone mentions him as the divine hero, who appeared on the field of Marathon during the great battle and assisted the Greeks (Paus. i. 15-3; i. 32-4). It may be that Pausanias made a slight mistake in the name, or it may be an error of the mss. From the well-known marshes of Marathon, Echelos or Hades, the marsh-occupier, might well have ascended to aid his worshippers and fill his realms with Persian dead. A rumor to that effect once started by the demesmen of Echelaidai would easily find credence at such a time amongst the assembled Athenians.

As for Hermes, to whom, along with the nymphs, the votive offering is dedicated, he is most appropriately portrayed in the act of conducting Basilê to the underworld. So also he figures in the Eleusinian form of the myth as conductor of Korê back to earth.

Turning to the other relief, there is little doubt in my own mind that Hermes is here likewise represented in the left-hand

figure. I fail to be convinced by Mr. Kavvadias, in his attempt to identify that figure with Artemis, nor do I recognize a river-god in the bearded personage in front of him, since he has no horns like his companions behind. Mr. Kavvadias sees in the relief a representation of two distinct groups: (1) The Ilissos river and Artemis (Agrotera or Munychia), and (2) the Kephisos with three nymphs. The scene, to him, allegorically represents the meeting of two cults located respectively on the Kephisos and Ilissos, the site where the marble was found being near the spot where these streams unite their waters. The position of the figures is against such a theory, to say nothing of the want of all connection in idea with the scene on the other side of the votive-slab. To my mind the explanation is rather this: The nymphs, attended by Kephisos, the river-god of Athens (or, it may be, Achelôus, who was worshiped at Athens along with the nymphs) and by Demos himself, the personification of Athens, are coming to Hermes who stands listening to Demos, the spokesman of the five. They are naturally enquiring after their abducted Basilê, and supplicating for her return. Hermes conducted her away and Hermes can give her back. The Athenian fields and brooks long for the coming of spring, in other words. In the Eleusinian myth Korê had been carried off by Hades while she was plucking flowers with her nymph-companions. Here it is the Great Mother Basilê whose return is longed for, but Mr. Kavvadias shows us that the Great Mother herself, no less than Korê, is frequently associated with the nymphs even in later mythology.

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A TERRACOTTA SKETCH BY LORENZO Ghiberti.

[PLATE XIII.]

In the autumn of 1892, I purchased of the Fratelli Bassetti in Siena a terracotta sketch, supposed to be by Ghiberti. It was said to have been long in the possession of a Sienese family. Further than this I know nothing of its provenance. The sketch has every apparent indication of being an old one. Traces of coloring, now largely washed away, still remain. At some period of its history the sketch had fallen from its place and broken in several places, but its original fragments were carefully gathered and mounted on a slate ground which seems to have been cemented on to a wall, so as to prevent further injury. The subject of the composition is a portion of the group to the left in the Moses panel of the second of Ghiberti's bronze gates for the Baptistery of Florence. In his *Second Commentary*,¹ Ghiberti gives this brief notice of the composition:—"In the seventh panel is (represented) how Moses received the tablets (of the law) on the mountain, and how half-way up the mountain Joshua waits for him, and how the people are astonished at the earthquakes, lightnings and thunder. And how the people stand at the foot of the mountain in amazement."

The incidents pictured in this panel are taken from the book of Exodus, which will furnish us a few additional details for its interpretation. To the extreme left is the Red Sea and the camp which the children of Israel erected before Mount Sinai. The people at the foot of the mountain may be divided into two groups: to the left is a quiet group gathered about an old man, who is addressing them; to the right a group in consternation over the physical disturbances which accompanied the giving of

¹ CARL FREY, *Vita di Lorenzo Ghiberti Scultore Fiorentino scritta da Giorgio Vasari*. Berlin, 1886, p. 53.

the law. For the sake of definiteness, we may name the old man Jethro, the father-in-law of Moses, who had recently arrived, bringing with him Moses' wife Zipporah and her two sons, Gershom and Eliezer (Ex. 18. 1-6). He is looking toward the Red Sea and seems to be saying, "Blessed be the Lord, who hath delivered you out of the hand of the Egyptians, and out of the hand of Pharaoh, who hath delivered the people from under the hand of the Egyptians" (Ex. 18. 10). Before him is a row of women in light and graceful pose, suggestive of the women who followed Miriam with timbrels and dances. Miriam herself is represented with a timbrel in her hand in a niche of the framework directly alongside of this group. In the foreground of the quiet group is a young warrior, symbolic of the victories already achieved against the Egyptians and against Amalek. Alongside of the warrior is Zipporah, with her two children.

In the excited group to the right is a woman with a frightened child. She is perhaps the Ethiopian woman, whom Moses had made his wife, much to the dissatisfaction of his sister Miriam and his brother Aaron (Numbers, 12. 1). About her are the elders and people, terrified by the "thunders and lightnings," and the "voice of the trumpet exceeding loud" (Ex. 19. 16). Above is figured Jehovah in the midst of angels, handing the two tables of the law to Moses, who receives them on the top of the mount. Below him, prostrate on the ground, is Joshua, who accompanied him (Ex. 24. 18). Aaron is perhaps to be recognized in the centre of the excited group, and is again represented, with the sacrificial flame in his hand, in a niche of the frame to the right of this panel.

In comparing the terracotta with the bronze, I have been led to believe the former to be a preliminary sketch by Ghiberti, for the following reasons:

1. It is not an exact copy of the group in the bronze panel, and its agreements and differences may be best explained on the supposition that it is a preliminary sketch. The principal figures, which we have named Jethro, the warrior, and Zipporah, appear to have been considered by Ghiberti as successful enough to be reproduced with but slight variations in the bronze. These variations, however, are important. The final sketch for the entire

panel, made in wax, contained a more elaborate composition; consequently the three individuals we have named are drawn more closely together and thus separated from the line of women to the left. Jethro, in the bronze, is placed more nearly behind the warrior; the warrior and Zipporah are also drawn closer together. We may observe another important difference, which may be best explained on the same hypothesis. In the final model Ghiberti apparently determined to separate more completely the quiet group on the left from the agitated group on the right. Consequently one of Zipporah's children is removed and finds his place by the side of the figure we have called the Ethiopian woman. As a consequence of this separation, the eye is led through an unobstructed passage between the groups and more readily seizes the principal theme upon the summit of the mountain. The artist, however, will not take away from Zipporah her two sons, and so replaces the lost child by another, who serves better the purpose of economy of space.

There are several other figures of which more than a reminiscence is preserved in the bronze. The first figure to the left on the terracotta is reproduced in similar attitude, but with more grace. The old woman next to her is retained also, and is adapted by a change of attitude to the enlarged composition. The man with a turban is not forgotten. There was no room for his face, but his turban remains, and in the same relative position. The woman to the right of Zipporah, with hands folded in prayer, is also preserved, but thrown more into the background. There are two other heads, that of a middle-aged man and of a youth, who appear also in the bronze; but in general the artist seems to have developed the idea of presenting a larger mass of people, and this has led him to suppress the representation of several heads and to substitute in their stead an approaching throng, which could be indicated with greater ease and with improved perspective by summarily indicating only the crowns of their heads. In the terracotta sketch, between the warrior and Zipporah is a woman; in the finished bronze a male figure is substituted, which has the advantage of bringing out the figure of Zipporah in stronger contrast.

These considerations seem to show that the variations in composition between the terracotta and the bronze are not such changes as would be likely to occur at the hands of a copyist, but are purposeful modifications by means of which the composition of the terracotta sketch becomes adapted to its new surroundings in the more complex composition of the bronze panel.

2. If we compare the style of the terracotta relief with that of the bronze, the preliminary character of the former will be still more evident.

The terracotta sketch is composed in a thoroughly plastic manner. The figures in the background were first fashioned and those in the foreground applied later. This is evident from the fact that several of the heads in the background are modelled with great care, as could only have been done when the artist was free to work without the impediment of the figures in the foreground. The face and breast of the warrior show that this figure also was modelled before being put in place. Now this method of plastic composition is not such as is likely to have occurred in the case of a copy from the bronze. Not only would a copyist have been likely to have reproduced Ghiberti's figures more exactly; he also would have copied Ghiberti's perspective and thus saved himself considerable unnecessary labor.

The terracotta group seems to have been modelled with special reference to the characterization of the different figures. There is here a greater variety of individual characters than in the bronze itself. This individualization is purposely sacrificed in the bronze for the sake of the mass, and the entire composition modified by reason of the enlarged perspective.

If we consider the mode of composition employed in the bronze gates, we find as many as thirty-one distinct events portrayed. In only one panel, that which represents the meeting of Solomon and the Queen of Sheba, do we find pictured a single event; in the rest there are two, three, four, and in the Jacob and Esau panel, as many as six different actions. The style of composition makes it, therefore, not unlikely that Ghiberti made studies for the minor compositions first, and then combined them in the larger units. This must, at least, be admitted in the case of the Abraham panel, which includes his earlier composi-

tion of the Sacrifice of Isaac; and if in this case, why not in the rest?

3. Having shown the preliminary character of the sketch, it follows almost immediately that it must be by the hand of Ghiberti himself. In the case of the first Baptistery gates, in which the coöperation of other artists was relied upon to a greater extent, the contract specifically demanded that Ghiberti with his own hand should execute the figures, trees, and such details as the hair, the nudes, &c.² The second gates seem to have been even more exclusively the work of Ghiberti himself.³ He was assisted by his son Vettorino and by Michelozzo; but the mannerism of Vettorino, as seen in the frame-work of Andrea Pisano's gates, and the style of Michelozzo, as seen in his work in association with Donatello, are not to be detected in our terracotta. This is evidently the work of a master hand, as may be judged from the individuality and graceful beauty of the heads and the naturalistic treatment of the drapery. Here and there, I am free to admit, there is a laxity in the pose of certain figures, in the perspective, in the swing of the drapery, that falls short of Ghiberti's best work; but the variation does not seem to be sufficiently strong to compel a different attribution. It is more easily explained by the supposition that the terracotta is a preliminary sketch. Let me call attention to a slight difference between the warrior of the terracotta and the same figure in the bronze. In the terracotta his cloak has a broad fringe and the back of his corselet is differently ornamented. But the variations are strictly within the limits of Ghiberti's own work. The prototype of this figure may be seen on Ghiberti's first gates in the panel of Pilate Washing his Hands. Here and in many other figures on the first gates, and in the panels of the font in the Baptistery at Siena as well, Ghiberti shows a fondness for ornamenting the edges of his draperies. The peculiar type of ornament upon the warrior's back may also be found in the base of Pilate's throne, and again upon the borders of the second gates.

It may be objected that the models for the second gates were in wax, and not in terracotta. A reference to the contract will

² MÜNTZ, *Les Archives des Arts*, pp. 15, 16.

³ MÜNTZ, *Archives des Arts*, pp. 19-21.

certainly show that wax models were used for the figures, heads, animals and ornamentation of the borders and cornices; and it may be admitted that the panel reliefs were probably cast in accordance with the same methods. But this in no way prevents our supposing that preliminary sketches may have been made in clay, since Ghiberti himself tells us in his Second Commentary that he made many sketches in this material.⁴ The terracotta sketch is somewhat larger than the original;⁵ this permitted greater freedom in modelling.

The discovery of this sketch has an important bearing on the estimate to be made of Ghiberti's methods. It would seem to indicate that his preliminary sketches were not made upon paper, but in plastic fashion in clay. In this manner he reached a thoroughly sculptural perspective, to be distinguished from that of the painter, and which should be a perpetual object-lesson to those who would force all relief sculpture into flat planes.

ALLAN MARQUAND.

⁴ CARL FREY, *op. cit.*, *Ancora a molti pictori e scultori et statuarii o (ho) fatto grandissimi honori ne loro laurori fatto moltissimi prouedimenti di cera e di creta e a pittori disegnato moltissime cose; et iando chi auesse auute appare (a fare) figure grandi fuori dela naturale forma (ho io) dato le regole a condurle con perfetta misura.*

⁵ The figure of the warrior in the terracotta is nine and a quarter inches high; in the bronze it is only four and a half inches.

NOTES.

THE TOPOGRAPHY OF SPARTA AND THE BUILDING OF EPIMENIDES.

In his report on the excavations carried on by the School at Sparta in the spring in 1892,¹ Dr. Waldstein says: "The most important discovery . . . was that of the circular building which I believe can, without a doubt, be identified with the building mentioned by Pausanias, III, 12-9, in the immediate neighborhood of the Skias," and which Pausanias says was thought to have been erected by Epimenides (2d half VII cent. B. C.). Dr. Waldstein regarded this discovery as of double importance, first on account of the circular form and early date of the structure, and, secondly, because it gives, finally, a fixed point of departure for the study of the topography of Sparta. The site was then, however, only partially excavated.

During the autumn of 1892, I undertook a topographical study of the site of ancient Sparta, which was finished in January, 1893, and is published, as then written, in a previous number of the JOURNAL (VIII, pp. 335-373). I here opposed the identification of this "circular" structure with the building of Epimenides, and for my reasons will refer to pp. 341-342. It seemed to me that it was the base of the colossal statue of Demos, described by Pausanias (III, 11, 9) as facing the Agora, and I predicted that "further excavation will reveal the fact that this was not a round platform, but a sort of semicircular retaining-wall, erected with the object of giving the huge image a secure and elevated position close to the Agora and overlooking it."

In the spring of 1893, the excavations were renewed, and the site of the structure entirely cleared, as is shown by the report of Mr. Meader in the JOURNAL (pp. 410-428), with additional remarks by Dr. Waldstein. Neither writer questions the identification with the circular building of Epimenides. Dr. Waldstein continues to call the structure circular, and regards the identification as natural. Although Mr. Meader expressed no doubt, it seems to me that his careful report shows almost conclusively that this was (1) not a circular but a semicircular structure, and (2) not a tholos, but a retaining-wall in the

¹ *Thirteenth Annual Report of the Archaeological Institute of America*, pp. 74-76.

centre of whose radius a colossal statue stood, of which the base and one thumb have been found.

Mr. Meader states that it is undoubtedly a "retaining-wall," and in one case calls it semicircular. The plan as given in Fig. 17 is restored on the supposition of a circular structure. The fact is, however, that the wall, as it remains, is about a perfect semicircle directly facing the Agora. There is one small piece of wall, marked *U* on the plan, which comes on the line which the old wall would have followed had it formed a continuous circle; but this bit of wall, according to the report, is very late, and the bricks and mortar used in it show that it does not belong to the original structure. It may be argued that, though there are now no traces of the continuation of the line of the semicircle, the other half of the supposed circle might at some time have been completely obliterated. A strong argument, however, against this, is the fact that at one end of the semicircle the wall stops without any sign of a break and is joined at an angle to a bit of contemporary wall which extends but a short distance when it is swallowed up in a little Byzantine church. The finish of the masonry at this point appears to exclude the coming in of another part of the segment of the circle. To sum up, there is no fact brought out in the Report which does not favor my hypothesis that we have in this structure the retaining-wall and base of the colossal statue of Demos. Of course this is of importance in the determination of the topography of Sparta.

N. E. CROSBY.

A PRIMITIVE DOME WITH PENDENTIVES AT VETULONIA.

I wish to call the attention of students of the history of architectural forms to the domical structure discovered by Cav. Falchi at Vetulonia, in the artificial tumulus called *La Pietrera*. A full account of the circumstances of its discovery, of the character and contents of the mound, and of the connection with surrounding examples and classes of tombs has been already given in Vol. VIII, No. 4, of this JOURNAL (pp. 620-29), as well as in this number, in the *News*. I will refer, therefore, for details, to these reports, which are condensed from Cav. Falchi's account in the *Notizie degli Scavi*.

The general features and arrangement of this hypogeum or domical tomb are analogous to a number of the Mycenaean funerary structures of the same kind. That is to say, it is built in the midst of an artificial mound, is reached by a long passage-way, has secondary chambers connected with it and is surmounted by a dome constructed of hori-

zontal overhanging courses of stone converging toward a central point and without a true domical construction of wedge-shaped courses.

The fundamental difference between these structures,—of which so many exist in Greece, and a few in Italy,—and this at Vetulonia, is that in the former the circular domical structure begins from the foundations, whereas at Vetulonia the ground-plan is square. A secondary difference is that in Greece the slant of the circular walls begins at once, whereas at Vetulonia the square walls are exactly vertical, until they reach the base of the dome, and this dome is not as acutely pointed as those in Greece.

In neither case have we a true dome, but in the Greek Mycenæan structure we have the prototype of the Pantheon, while at Vetulonia we have a forerunner of the Byzantine domes on pendentives—a far more advanced type.

I have spoken of one structure, but in reality there were two chambers—one built over the ruins of the other. They are of equal dimensions and constructive form, so far as can be judged. The first chamber was built of *Sassoforte* granite which was not able to resist the pressure of the superincumbent earth and its dome fell in not long after construction: this is Cav. Falchi's opinion. On its strengthened walls the second chamber was built with slabs of *Sassovivo* stone with regularity and exactness and without the use of cement. This higher construction led to the raising and enlarging of the mound. Its vault had been partly demolished at some time in order to use its stones. The chamber is a square, measuring five metres, and the transition to the dome was managed by pendentives in the four corners which pass gradually from the square to the circular plan until they form a perfectly circular drum upon which the vault rests. Up to this point—a height of 3.70 metres—the walls are perfectly vertical. The large slabs of stone have a mean thickness of 20 cent.¹

Just outside of the chamber, on either side of the corridor 14 met. in length, which leads to the outer edge of the artificial mound, is a smaller chamber. They both measure 2.40 met. in height, 1.90 met. in width and 3.10 met. in depth, and are covered with small domes, adjusted to the ground-plan in the same way as the main chamber.

¹ There is one point that at first seems to remain doubtful in Cav. Falchi's report, and that is one of extreme importance, namely: were there wedge-shaped stones used in the domes of either the first or second chambers, or were they, like the Mycenæan domes, constructed in strictly horizontal courses? The latter method was certainly the one employed. Cav. Falchi mentions wedge-shaped stones fallen from the earlier dome, but what he refers to is apparently the shape given by the diagonal cutting of the edges and the greater narrowness toward the face.

The ground-plan of the mound and chamber given in fig. 1 is taken from the *Notizie degli Scavi*.

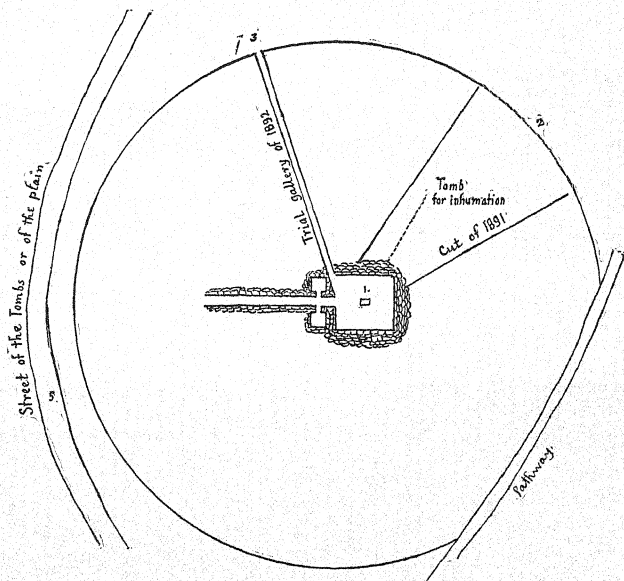


Fig. 1.—Mound of La Pietrera at Vetulonia.

It is generally agreed that the circular form is more ancient in Greece than the square or rectangular form of the sepulchral chamber. At the same time, there are many rock-cut tombs of the Mycenaean period in Greece with rectangular chambers. The Etruscans employed the rectangular chamber from the beginning. It seems as if the few exceptions to this rule were due to Oriental influence: such is the chamber at Quinto Fiorentino, which Helbig places before the close of the sixth century—how much before he does not say. The hypogeum at Vetulonia is certainly as early as the seventh century B. C. and it may be earlier. It is, therefore, about contemporary with such late Mycenaean domical tombs as that of Vaphio.

The question arises: what is the reason for the combination of the dome and the square plan in this instance. Practically speaking the dome imposed itself under the circumstances, for it was the only form of covering that could successfully withstand the pressure of the immense mass of superimposed earth. But for what reason was the dome attached to a rectangular chamber. Why was this additional risk run, why this added labor undergone? It was certainly an unnatural step to take. All tradition was in favor of the circular form. The incomers from the Orient—for such they must have been—settling among the natives, whose well-tombs at Vetulonia show a far inferior degree of culture, could hardly have been much influenced by this lower form of civilization. In fact the funerary deposits that are found in stone circles with central tombs at Vetulonia,—of which this one of the *Pietrera* is the largest, are, according to Cav. Falchi, unmixed foreign deposits, without a single Italic object.

There are two hypotheses to account for this use of the square plan. [I] The ancient Italian tomb-chamber was rectangular and the new comers on settling in Italy came under the spell of certain religious ideas connected with this form and therefore adopted it. [II] Or a more probable hypothesis is that the adoption of the square ground-plan had an earlier origin, outside of Italy, in the Orient.

It is possible that when we know more of the history of the dome in the ancient Orient and also more about this mysterious people in Italy, we shall be able to connect the hypogeum at Vetulonia with the square halls in the Assyrian palaces surmounted by domes probably built on a more scientific plan than that of Vetulonia.

However we may attempt to explain it, the fact remains that it is a unique monument and deserves to be very carefully studied and measured. We hope that Cav. Falchi will publish it shortly in every detail, and until this is done it would be useless to indulge in further speculation.

A. L. FROTHINGHAM, JR.

REVIEWS AND NOTICES OF BOOKS.

EDWARD ROBINSON.—*Museum of Fine Arts, Boston. Catalogue of Greek, Etruscan, and Roman Vases*, by EDWARD ROBINSON, Curator of Classical Antiquities. Boston and New York, Houghton, Mifflin and Company, 1893.

"In the present catalogue the Museum of Fine Arts desires to offer to archaeologists an exact description of the vases in its classical collection, and to the general public some assistance in learning to appreciate the qualities which give Greek vases an interest possessed by few classes of ancient monuments." These opening words of the preface of this admirable book acquaint us with the twofold task to which the author has applied himself, and which he has accomplished in a manner deserving the highest praise.

The introduction gives in fifty pages a clear and, considering its brevity, very satisfactory sketch of the history of Greek vases, a description of the process of their manufacture, and a list of Greek potters. The first and second sections are headed by well-chosen bibliographies, and notes in the text refer to authorities on special points. The second section is illustrated by six cuts, and a tail-piece represents a buffet with vases stacked upon it, from a wall-painting in Corneto. To the list of potters should be added the name of Hermokrates, a painter of the school of Epiktetos (Εφ. 'Αρχ. 1890, pl. 2).

In the history of Greek vases there are few assertions to which it is difficult to assent, yet some statements seem to be made more positively than is warranted by the present state of knowledge. On page 3, Mr. Robinson says, speaking of the Hissarlik vases: "Whether made by the ancestors of the Greeks, or by a people closely affiliated with them, they certainly represent the earliest type of culture of the race to which the Greeks belonged," and, on the same page: "specimens of pottery of characteristics similar to the Trojan have been found in several of the islands of the Ægean and the eastern Mediterranean. . . . As a rule they are evidently not importations from a common source, but the independent products of a similar state of civilization by members of the same race. . . . Notable among these

are the earliest types found in Cyprus." These passages taken together seem to assume as a certainty that the inhabitants of Cyprus before the advent of the Phœnicians were not only closely related to the people of Hissarlik, but also to the ancestors of the Greeks. That this is at any rate not certain, is shown by Dümmler, *Mith. d. Inst. Athen*, 1886, p. 243 sqq., who argues that the early Cyprians, and then also the people of Hissarlik, were Semitic. On page 8, we are told that the Dipylon style "did not disappear altogether until the end of the seventh century, if not later." If this means that the manufacture continued to 600 B. C., the date seems rather late in view of the fact that the earlier black-figured vases must now be put back well into the sixth century (Cf. Brueckner and Pernice, *Mith. d. Inst. Athen*, 1893, p. 136 sq.). Whether the so-called Cyrene pottery is really from Cyrene may not be so certain as seems to be assumed on p. 16.

The "island" style is referred to on p. 2, and again p. 9, note 2, but is not described. One would expect to find it treated after the geometric style, but this is followed in order by the Rhodian, Melian, and Cyprian styles. As all these places are islands, those who make their acquaintance with Greek vases through the medium of this book might be tempted to form an "island" style by combining the Rhodian, Melian, and Cyprian.

The descriptions of the various styles and classes of vases are excellent, and note clearly the salient points. Nor, with the exception mentioned above, is there any fault to be found with the dates assigned, unless perhaps the dates 2000-1800 B. C. for the vases of Thera, and 1400-1100 B. C. for those of Mykenae may be somewhat too restricted.

On turning to the catalogue proper, those who are unacquainted with the Museum of Fine Arts will probably be surprised to find so large and excellent a collection. There are 896 numbers, including thirteen pieces of Armenian pottery, 144 pieces from Naukratis, and 116 fragments of various wares. There are no specimens of the Hissarlik pottery nor of that from Thera, but these are almost the only gaps in the collection, the contents of which may be briefly given, adopting the order of the catalogue, as follows: Case 1—*Early Greek Styles*; Nos. 1-6, Mykenae style; 7-14, Geometric; 15-18, Italic; 19-28, "Proto-Corinthian"; 29-77, Corinthian; 78-87, Miscellaneous. Case 1A—*Prehistoric Italic Pottery*, 88-100, Contents of a Prehistoric Grave in the Region of the Alban Lake. The grave is one of those which were buried under the volcanic deposits from the Alban craters (see Lanciani, *Ancient Rome*, p. 27 sqq.). 101-105, Contents of a Prehistoric Roman Grave, discovered on the Esquiline, within the wall of Servius Tullius, in the spring of 1888. The importance of the contents of

this case to students of prehistoric Roman and Italic archaeology is evidently very great. Case 2—*Vases from Cyprus*, Nos. 106–239, part of a collection purchased from Gen. di Cesnola, giving good examples of almost all varieties of Cyprian ware, though unfortunately a few of the vases are very much “restored.” Case 3—*Bucchero Ware*, 240–307, consisting for the most part of the Dixwell collection, “formerly a portion of a public collection in Chiusi, which was disposed of at public sale in Florence in 1875,” offering very exceptional advantages for the study of this ware. Cases 4 and 5—*Black-figured Vases*, 308–387. Cases 6 and 7—*Red-figured Vases*, 388–488, among which are included six white Attic lekythoi, 448–453. Case 8—*Vases from Lower Italy*, 489–530; *Megara Bowls*, 531 and 533, and *Miscellaneous late Greek types*, 534–539. Nos. 540–578 are also miscellaneous late types. Case 15 contains Arrhetian ware, commonly miscalled Samian ware. Nos. 579–619, Nos. 620–623, are coarse Roman jars. The pottery from Naukratis, in case 15 of the Egyptian room, “was presented to the Museum by the Egypt Exploration Fund, and includes a liberal selection of specimens of the various types discovered during the excavations conducted by the Fund in the years 1884–87.” This collection enables American students to become acquainted with all the varieties of Naukratis ware in the original. The latter part of the catalogue is taken up with fragments of various wares.

It is evident from the above summary that the Museum, besides possessing admirable collections of Cypriote, early Italic, and Bucchero wares, is exceptionally rich in Attic vases of the black- and red-figured styles. Many of these are unusually interesting. One of the white lekythoi, 448, derives special interest from its inscription, *Ἀέας καλός*, such inscriptions being extremely rare on vases of this class. The lekythoi 450–452 are published by Professor Wright in this JOURNAL, Vol. II, Pl. XI, Pl. XII–XIII, Nos. 7 and 9.

The colored frontispiece reproduces No. 432, a red-figured vase of the “fine style” representing the death of Orpheus. In the description, the figure at the extreme right is spoken of as being at the left, and *vice versa*. It would be well, too, in describing this painting, to mention the peculiar drawing which makes the right arm of some of the figures, notably the one to the right of Orpheus, appear to come from the left shoulder, and *vice versa*. In the description of 434 (p. 160, l. 6), three narrow bands twisted about the hair of a handmaiden are mentioned, but they do not appear upon the opposite page where the painting is published. Whether the description or the publication is at fault, cannot be determined at a distance. In general, the descriptions appear to be careful and exact. They are supplemented by nine full-page illustrations besides the frontispiece, and by a minia-

ture outline of nearly every vase. This last is an important addition to the value of the catalogue.

The paintings chosen for publication are all interesting for various reasons. 335 and 336, black-figured lekythoi from Eretria, have designs representing Helios rising in his chariot and Herakles with Pholos, respectively. 372 is a black-figured skyphos surrounded by a frieze, divided by the handles into two groups. One of these represents six warriors riding on leaping dolphins towards a full-draped man who stands facing them, playing on a double flute. The other represents six youths riding upon ostriches toward a similar flute-player, before whom stands a bearded dwarf. These are explained as chorus scenes from early Attic comedies, an explanation which must, perhaps, be provisionally accepted, though it is hard to imagine the successful production of such choruses at the date to which this vase must be assigned. 394 is a kylix conjecturally assigned to Euphronios. The painting in the centre represents Dionysos and a satyr. An inscription reads: *ὁ παῖς καλός*. The Museum is fortunate in possessing as a loan one of the ten vases signed by Euphronios, No. 388, a kylix with the representation of two-headed men dancing. The painting upon the stamnos 419 represents, in severe red-figured style, the murder of a harper by a youth, assisted by a woman, in the presence of two additional persons, one male and one female. It is explained as the death of Orpheus represented by means of *motives* belonging to the death of Aigisthos. Nos. 424, 426, 434, and 447, the subjects of the remaining full-page illustrations, represent, respectively, a group of satyrs, a youth accompanied by a dwarf leading a dog, a domestic scene (three women), and a youth and maiden before a grave stele, all in red-figured styles. The illustrations are well done.

It is to be hoped and expected that this book will not only serve to make archæologists better acquainted with the great value of the collection of vases in the Museum of Fine Arts, but will also by means of the masterly introduction awaken a more general interest in the study of ancient ceramics.

HAROLD N. FOWLER.

ADOLF FURTWÄNGLER. *Meisterwerke der Griechischen Plastik. Kunstgeschichtliche Untersuchungen* von ADOLF FURTWÄNGLER. Mit 140 Textbildern und 32 Lichtdrucktafeln in Mappe. 8vo. pp. xvi, 767. Verlag von Giesecke und Devrient. Leipzig-Berlin, 1893.

This work is certainly a magnum opus, full of original conceptions, of careful observation, and of diligent comparisons. It is a veritable

storehouse of learning. The attractive blue-and-white binding, in which it comes to us from the hands of the publishers, and the high quality of the illustrations, are an indication that the volume is intended to find its way into the libraries of wealthy art amateurs. But the text is in no sense addressed to the general public; it is a scientific treatise of the highest order, the fulcrum around which historical criticism of Greek sculpture must swing for many years to come. With this book in hand Overbeck becomes a representative of archaic criticism. So comprehensive is the range of Furtwängler's acquaintance with Greek and Roman marbles, bronzes, terracottas, vase-paintings, texts and inscriptions, that even Brunn seems to occupy a narrower field of influence. Leipzig and Munich are already overshadowed by Berlin.

It would be idle to attempt a critical review of a work of this magnitude. This can be done only by specialists, and at much greater length than we have at our disposal. But we may at least set before our readers Furtwängler's general point of view and give a brief notice of the scope of his book.

The foundation upon which this work rests is a personal and direct observation of monuments and a critical comparison of them through the assistance of casts and photographs. Again and again we are impressed by the freedom of Furtwängler's powers of observation. None of the details of style escape his attention. Whether it be the treatment of the hair, of the eye, nose, mouth, ear, the drapery or general composition, he has observed them all, and frequently suggests some illuminating generalization, utilizing every such detail for chronological purposes with as much security as the epigraphists feel in the chronological value of the forms of letters.

But the masterworks of Greek sculpture, the subject of his volume, have almost without exception perished. How, then, does he use the methods of observation to so much purpose? We might suppose that the few existing Greek originals would be made the basis of his argument and afford the criteria for the classification and restoration of the missing masterpieces. But such a slender foundation would not have sufficed for the superstructure he wishes to raise. His real starting-point is found in the numerous copies made by the Romans of the famous statues of the Greeks. He argues that when many replicas of the same type are found, we may assume as a starting-point a Greek original. In the critical analysis of the copies great pains must be taken to distinguish between those which are exact copies and those which contain later variations. In the absence of the originals, we must here be guided in our estimate of the exactness of the copy by such other originals as have been preserved, by

traditional descriptions, by contemporary copies on vase-paintings, coins, *etc.* In this manner from the copies we may reconstruct the originals.

This is the first time that in a systematic, far-reaching and extensive manner the lost masterpieces of the Greeks have been placed before our eyes; in copies it is true, but in a manner which enlarges our conceptions respecting the styles and peculiarities of the great artists. It also vivifies our interest in a multitude of monuments which otherwise would be overlooked as of secondary importance.

The volume is divided into a series of separate studies upon: Pheidias; The Athena Temple on the Akropolis; Kresilas and Myron; Polykleitos; Skopas, Praxiteles and Euphranor; The Venus of Milo; The Apollo Belvedere; An Archaic Greek bronze head; The Throne of the Amyklean Apollo. Even this analysis does not completely cover the scope of the work, for the works of many other artists are considered at length, whose names do not appear in the titles of the chapters. These studies are not systematic treatises, such as one expects to find in an encyclopædia or in a history of Greek sculpture; they are critical studies, in which traditional and received opinions are treated lightly but the monuments with great analytic acumen.

The starting point for his study of Pheidias is the Lemnian Athena. This he recognizes in two marble copies in Dresden, and secures a more exact restoration of the head by means of an Athena head in Bologna, and of the pose by means of an ancient gem. He then fixes its position on the Akropolis, determines its date as 450 B. C., discusses its prototypes and the changes made by Pheidias. This statue becomes the norm by means of which he reaches conclusions which vary widely from the generally received opinions. He places the Lemnian Athena at the beginning of the career of Pheidias, allowing a few works only to be of earlier date. This would do away entirely with the Kimon period and place Pheidias exclusively in the age of Perikles. The Athena Promachos is attributed to Praxiteles the elder, the Olympian Zeus is put later than the Parthenos, and the residence of Pheidias at Olympia treated as a myth. The decorative sculptures of the Parthenon, with the exception of the more archaic of the metopes, are assigned to Pheidias. He interprets the Eastern frieze as representing the bringing of the Peplos for the ancient statue of Athena, which he believes Perikles intended to have placed in the Eastern section of the Parthenon. The stools which the maidens are carrying are intended for the Olympian divinities who were considered as guests at the great Panathenaic Festival. They are seated in the following order: Hermes, Dionysos (on a cushion), Demeter (with

a torch), Ares, Hera, Zeus, and to the right Athena, Hephaistos, Poseidon, Apollon, Artemis, Aphrodite. The Western Pediment of the Parthenon is interpreted as dedicated to the Parthenoi; that is, the daughters of Kekrops on the one hand and of Erechtheus on the other. The figures in the angles are not river gods, but Buzyges and his wife on one side and Butes and his wife on the other. In the centre Athena and Poseidon meet as rival rather than as conflicting divinities, both of them being associated, as is the case with all the other figures of the pediment, with the history of the Akropolis. The Eastern Pediment receives also a new interpretation. The central group, in which Zeus and Athena appear as equal divinities, is restored from the Madrid puteal—to the left are Helios, Kephalos, the Horai, Hebe (two other divinities, then Hera and Zeus); to the right are (Athena, Poseidon, two divinities) the Moirai and Nyx. Thus in both pediments there is seen to be preserved a more thorough balance and symmetry than appears in most interpretations. In the study on Polykleitos, the recent discoveries of the American School at Argos are summarily dismissed as non-Polykleitan in style. Around the Doryphoros and the Diadumenos he collects a series of variant forms, and in a most interesting manner utilizes the bases found at Olympia in reëstablishing as Polykleitan a series of statues. In the same way as the zoölogist from a single bone can reconstruct the form of an extinct animal, so the archaeologist of to-day requires even less than the fragment of a statue: the mere manner in which the feet are posed upon the pedestal throws considerable light upon the form of the statue which the pedestal once served to support. In the section on Praxiteles a new light is thrown upon the work of the master; his earlier statues, more Polykleitan in character, being distinguished from the later, of which the Hermes is the crowning example. Few perhaps will be ready to follow Furtwängler so far as to see in the Otricoli Zeus the direct influence of Praxiteles. The section on the Venus of Milo is a very thorough archaeological and critical study, leading to the unexpected conclusion that the Melian statue represents a mixture of two types, one of which is to be referred to Skopas, the other being the Melian Tyche.

The fine series of plates which accompanies the volume is valuable in reproducing works of sculpture which are not elsewhere accessible.

ALLAN MARQUAND.

J. T. BENT. *The ruined cities of Mashonaland, being a record of excavation and exploration in 1891*, by J. THEODORE BENT, etc.; with a chapter on the *Orientation and Mensuration of the Temples*, by R. M. W. SWAN. 8vo., pp. xi, 376. London, 1892, Longmans, Green & Co.

Mr. Bent is one of the most energetic of the travellers and explorers of this generation. His researches among the Greek islands and on the Bahrein group off Arabia had already placed him in the front rank, and recently, in his expeditions to the region of the ancient gold mines of Mashonaland, in South Africa, and in his more recent expedition into Abyssinia, he has scored two distinct successes. Elsewhere in the *News* of this JOURNAL (vol. VII, p. 491, VIII, p. 254), accounts have been already given of the results of his investigations and their historic and archæological bearings. The present volume is divided into three parts: Pt. I, *On the road to the ruins*, being an account of the journey up from Vryberg through Bechuanaland by the Kalahari desert route, then of the first impressions of Mashonaland, and, finally, of the camp life and work at Zimbabwe. The archæological part of the work is reached in Part II, which is devoted to the *archæology of the ruined cities*.

"The ruins of the Great Zimbabwe (which name I have applied to them to distinguish them from the numerous minor Zimbabwes scattered over the country) are situated in south latitude 20°, 16', 30", and east longitude 31°, 10', 10", on the high plateau of Mashonaland, 3,300 feet above the sea level, and form the capital of a long series of such ruins stretching up the whole length of the western side of the Sabi river. They are built on granite, and of granite, quartz reefs being found at a distance of a few miles. The prominent features of the Great Zimbabwe ruins, which cover a large area of ground, are, firstly, the large circular ruin with its round tower on the edge of a gentle slope on the plain below; secondly, the mass of ruins in the valley immediately beneath this; and thirdly, the intricate fortress on the granite hill above, acting as the acropolis of the ancient city."

The circular ruin has an elliptical shape, with a greatest length of 280 ft., a wall at its highest point of 35 ft., and with a greatest base thickness of 16 ft. The wall is constructed of small stones a little larger than bricks, laid without cement or mortar, in perfectly true courses. The S. E. portion of the outer wall is decorated with a pattern in low relief coinciding with the position and limits of the sacred enclosure inside, and the top of the same section of the wall was made into a promenade, paved with slabs of granite and decorated with large monoliths. The interior is a perfect labyrinth. A stupendous

narrow passage leads from the main entrance to the sacred enclosure, on either side of which rise the great walls, thirty feet high, "built with such evenness of courses and symmetry that, as a specimen of the dry builder's art, it is without a parallel." Buttresses and portcullises defended the entrances and passageways at every point. Within the sacred enclosure stood two round towers of conical shape, but unequal height, the larger being 35 ft. high. Such towers, or colossal cones, are known to have been erected by the Phœnicians within their temple precincts: examples can be cited in Phœnicia, Malta, Sardinia, *etc.* No cemetery was found in connection with Zimbabwe, and Mr. Bent's conclusion was "that the ancient inhabitants, who formed but a garrison in this country, were in the habit of removing their dead to some safer place. This plan seems to have a parallel in Arabia in antiquity, a notable example of which is to be found in the Bahrein Islands, in the Persian Gulf, where acres and acres of mounds contain thousands of tombs, and no vestige of a town is to be found anywhere near them."

The fortress is even more remarkable. Its wall is thirty feet high in parts, and the flat causeway on the top was decorated on the outside edge by a succession of small round towers alternating with tall monoliths. "The labyrinthine nature of the buildings . . . baffles description." Every imaginable precaution against attack was taken in the way of buttresses, tortuous and narrow passages and traverses. There was a temple at the S. W. end, containing an altar, around which were found phalli, birds on soapstone pillars and fragments of soapstone bowls. Gigantic granite boulders, some over fifty feet high, are strewn over the summit. Mr. Bent closes his description with these interesting sentences: "Such is the great fortress of Zimbabwe, the most mysterious and complex structure that it has ever been my fate to look upon. Vainly one tries to realize what it must have been like in the days before ruin fell upon it, with its tortuous and well-guarded approaches, its walls bristling with monoliths and round towers, its temple decorated with tall, weird-looking birds, its huge decorated bowls, and in the innermost recesses its busy gold-producing furnace."

The ruin of the great circular building at Matindela is second only in importance to the Great Zimbabwe. All the other ruins visited by Mr. Bent, or reported to him, are far inferior and do not merit the same attention.

The large number of similar ruins, in each case found near gold workings, proves that an extensive population once lived here as a garrison in a hostile country for the sake of the gold which they extracted from the mines in the quartz reefs between the Zambesi and

Limpopo rivers. All were built by the same race and belong to the same period. The ruins are circular or elliptical in shape, and an interesting feature in nearly all of them is the ornamental pattern encircling only a portion of the outer wall—facing the southeast. It is probable that this fact had a religious significance and was connected with solar worship. The buildings served both as temple and as fortress.

The chapter by Mr. Swan, *On the Orientation and Measurements of Zimbabwe Ruins*, is an attempt to prove that at Zimbabwe, in connection with the worship of the sun and the reproductive power, several methods were employed for observing the motions of the heavenly bodies, in order to use this knowledge in regulating the celebration of religious festivals and the ordinary affairs of life. According to Mr. Swan, the structure, orientation and various openings of the Zimbabwe structures were made to subserve this purpose. His principal measurements are for the purpose of calculating the radius of the arc of different sections of the walls, and in order to ascertain how the rays of the rising sun would penetrate into the interior at the summer solstice. There does not seem to be a sure enough basis of facts for the conclusions drawn in this chapter, nor do the other ruins of the country furnish strictly concordant data.

The following chapter is on *The Finds at the Great Zimbabwe Ruins*. Of these the most remarkable are the hawks or vultures perched upon tall columns, of soapstone. These birds, found around the altar, were, according to Mr. Bent, sacred to Astarte. In connection with these were found: phalli, some of them decorated; decorated soapstone beams, with a geometric ornamentation like that on early Cypriote pottery; fragments of large soapstone bowls, some of which have frieze-like scenes in relief, processions of animals, hunting-scenes, religious processions, geometric patterns, etc. Close underneath the temple in the fortress stood the gold-smelting furnace, made of very hard cement, of powdered granite, with a chimney of the same material, and with neatly bevelled edges. Near it were many little crucibles, of a composition of clay, which had been used for smelting the gold, usually with specks of gold still adhering to the glaze. There were also water-worn stones used as burnishers, an ingot mould of soapstone corresponding almost exactly to a Phœnician ingot of tin found in Falmouth Harbor.

Chapter VII deals with *The Geography and Ethnology of the Mashonaland Ruins*, and gives a sketchy account of the past knowledge of this region down to the time of Mr. Bent's visit.

The third and last part of the book treats of *Exploration Journeys in Mashonaland*, which refer only incidentally to archæological matters.

Mr. Bent here throws some light upon the Monomatapa Empire which flourished in this region several hundred years ago.

At present Fort Salisbury is the centre of a new English enterprise and is the future capital of the Mashonaland gold fields *redivivi*.

A. L. F., JR.

F. J. BLISS. *A mound of many cities, or Tell el Hesi excavated*, by FREDERICK JONES BLISS. 8vo., pp. xii, 197. New York, Macmillan & Co., 1894. Price, \$2.25.

The task of excavating the mound of Tell el Hesi, in Palestine, 16 miles E. of Gaza, and 23 miles W. of Hebron, was commenced by Mr. Flinders Petrie in April, 1890. In his "reconnaissance of six weeks, during which he examined the tell merely at its sides, he was able to reconstruct its past history from the apparently unimportant remains he found, and to reach conclusions which my (Mr. Bliss) detailed examinations through four seasons ... merely modified, but did not materially alter." Mr. Petrie has reported on his own work in his publication, "*Tell el Hesi*" (*Lachish*), published in 1891, for the Palestine Exploration Fund. During 1891, 1892 and 1893, Mr. Bliss carried forward the work on a quite different scale, cutting down one-third of the mound, layer by layer. He agrees with Petrie and Conder in identifying the site with the city of Lachish: in fact, it was through his discovery of the cuneiform tablet with the letter containing the name of Zimridi, governor of Lachish, that the strongest argument in favor of the identification was secured.

Mr. Bliss' conclusions are that some 2000 B. C. the Amorites built a town on this bluff, some 60 ft. above the stream-bed of the Wady el Hesi, and on the ruins of this city their successors built another and then another, until about 400 B. C., when the site seems to have been abandoned, the ruins of the last inhabitants being 60 ft. above the ruins of the first builders, with a series of six intermediate towns, each represented by a separate layer: in all eight layers. The dates assigned by Mr. Bliss to the various towns are the following: City Sub I, 1700 + B. C.; City I, c. 1600 B. C.; City Sub II, c. 1550 B. C.; City II, c. 1500; City III, c. 1450; City Sub IV, c. 1400; City IV, c. 1300-1000; City V, c. 1000; City VI, c. 800; Cities VII, VIII, c. 500 and 400 respectively. The earliest three or four settlements were evidently the largest and most important, the later settlements being confined to the small area of the tell, a good part of which, however, has been anciently undermined and carried away by the stream. Bliss' main excavation area was 160 ft. N.-S. and 125 ft. W.-E. The most inter-

esting ruins of the earliest period were the great city walls, 16 ft. thick and having great corner towers, 56 by 28 ft., with rooms about 10 ft. square. The early pottery, called Amorite by Mr. Petrie, occurs in City Sub and i, while the Phœnician pottery begins to appear in City ii, running through City iv. In City ii was an interesting blast-furnace. In City iii was found the famous Cuneiform tablet of Zimrida. Several scarabs of the xviii Egyptian dynasty were found in Cities ii and iii. City iv also has xviii-dynasty scarabs, with a xix-dynasty scarab toward the top, near which were found a cylinder with xxii-dynasty glazing and a Phœnician inscription of about 1100 to 1000 B. C. Near by was a stamped jar-handle inscribed in hieroglyph, "The palace of Ra-aa-Khepuru," that is, Amenhotep II. In City Sub iv were found an Egyptianizing bronze statuette and an extremely rude terracotta female statuette: also a wine-press (c. 1200 B. C.) in excellent preservation. A fine public building with a symmetrical plan was found. It was 56 ft. square, and its largest room measured 30 ft. by 15. In this stratum Mr. Petrie had found a building with the two famous door-jambs, each bearing a pilaster in low relief, terminating in a volute in place of a capital. Many of the objects found in these two strata have an Egyptian character—which adds to the testimony of the scarabs. At the same time these strata represent the principal age of Phœnician pottery. In City v a very peculiar and interesting building was found, covering an area of 112 ft. by 45, and apparently formed of three halls divided into three aisles by two rows of brick piers or columns. The characteristic pottery of Cities v to viii was the Jewish, *i. e.*, coarse copies of the older Phœnician types; and "polished red and black Greek ware appeared from the top of the tell down to the higher layers of City vi." Of the last chapters, entitled "Sketch of the Expedition," and "The Arabs and the Fellahin," it is not necessary to speak, though they add greatly to the interest of the book. Certainly the archaeological results of the excavations are interesting, but they are disappointing, in so far as they relate to the history of art, from the extreme insignificance of the objects found.

A. L. F., Jr.

ARCHÆOLOGICAL NEWS.

SUMMARY OF RECENT DISCOVERIES AND INVESTIGATIONS.

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AFRICA.

EGYPT.

The past season is an important one in the annals of Egyptian archæology, not so much for the number as for the quality of the undertakings.

After a number of minor enterprises, the Egypt Exploration Fund has once more come to the front with its excavation of the temple of Hatshepu, under the direction of M. Naville, which promises to surpass in monumental interest even the excavations of the Fund at Bubastis. M. de Morgan's discoveries at Abusir and Dashour are of great interest, and the latest news from Dashur, which came too late to be inserted in this number, shows that no more important find for our knowledge of the art of the Middle Empire has yet been made.

The project of the Fund to conduct a complete archæological survey of Egypt, which is still carried on, has stimulated the activity of the indefatigable M. de Morgan, who has already issued Part I of what promises to be the greatest work yet issued on Egyptian Monuments, and in connection with which he is carrying on, and will continue to carry on, important excavations like those reported in this issue of the *News*.

Mr. Petrie's work at Koptos promises to be unique in its value for the earliest period of Egyptian civilization.

At the last moment we hear that a large appropriation has been made by the Egyptian government for the erection of a suitable and safe museum building.

THE MONUMENTS OF ANCIENT EGYPT.—We here reprint part of the circular announcing the publication of the great work on the monuments of Egypt, undertaken by the French archæologists under the direction of M. de Morgan. Its title is: "Catalogue des monuments et inscriptions de l'Égypte antique. Ouvrage publié sous les auspices de S. A. Abbas II Helmi, Khédive d'Égypte, par la direction générale des antiquités de l'Égypte." The first section of the book, of which part I has just appeared, has the sub-title: "Première série: haute Égypte. Tome premier: de la frontière de Nubie à Kom Ombos. Par J. de Morgan, U. Bouriant, G. Legrain, G. Jéquier, A. Barsanti."

The circular says: La publication dont le "Service des Antiquités de l'Égypte" donne aujourd'hui le premier volume, est destinée à renfermer la description complète de tous les monuments, de tous les sites de l'Égypte antique, ainsi que la reproduction fidèle de toutes les inscriptions de la vallée du Nil quelle que soit la langue dans laquelle elles ont été rédigées.

Autant que ses ressources le lui permettent, le "Service des Antiquités de l'Égypte" fait déblayer les édifices afin de mettre à jour les textes qui en recouvrent les murailles et d'en pouvoir donner une description complète. Mais fréquemment arrêté par des impossibilités matérielles, il doit souvent se contenter d'effectuer les travaux les moins dispendieux et de laisser pour l'avenir un grand nombre de monuments et plus particulièrement de tombeaux qui n'ont pas encore vu le jour depuis l'antiquité.

Sous le titre de "Catalogue des monuments et inscriptions de l'Égypte antique" cet ouvrage comprendra tous les documents archéologiques actuellement visibles dans la vallée du Nil et dans toutes les régions où les Pharaons ont laissé des témoins de leur puissance. Il embrassera tout ce que nous connaissons depuis les âges préhistoriques et ceux des souverains des premières dynasties jusqu'aux derniers restes de la civilisation byzantine, au moment où les arts, les usages et la langue des Arabes s'établirent dans le pays et firent à jamais disparaître la vieille Égypte. Cette publication sera forcément incomplète, car chaque année les fouilles amèneront la découverte de monuments nouveaux, mais il sera facile de créer des volumes supplémentaires et de tenir ainsi cet ouvrage au courant des progrès de l'archéologie en Égypte.

Les monuments seront décrits très sommairement, mais ces descriptions seront accompagnées d'un grand nombre de plans, de coupes et de vues, afin d'en faciliter l'étude au point de vue de l'architecture. Les textes seront reproduits le plus souvent en fac-simile afin d'en conserver les caractères paléographiques. Mais dans aucun cas il n'en sera donné de traduction, afin d'éviter autant que possible que cette publication devienne un champ de polémique et pour en abréger la rédaction. Les égyptologues qui participeront à ces travaux seront toujours à même de publier dans des ouvrages séparés la traduction et la discussion des textes, d'exposer leurs théories et leurs appréciations personnelles. Mais le Service des antiquités de l'Égypte ne peut embrasser une publication d'une aussi grande étendue. Il serait débordé par l'abondance des mémoires et n'atteindrait jamais son but.

Le "Catalogue des monuments et inscriptions de l'Égypte antique" ne comprendra que les documents qu'il est possible de qualifier d' "immeubles", c'est-à-dire

tous ceux qui ne peuvent ou ne doivent être transportés. Les monuments transportables qui sont aujourd'hui dans les musées du Caire et d'Alexandrie de même que ceux qui dans la suite y seront déposés feront l'objet d'une publication spéciale sous le titre de "Catalogue des Musées Archéologiques de l'Égypte".

Maintenant que les textes n'ont plus de secrets, que grâce aux efforts incessants d'une pléiade de savants l'égyptologie est devenue une science précise, l'intérêt d'une publication complète des monuments se fait très vivement sentir. Chaque année, depuis plus d'un demi siècle, de nombreux étrangers, attirés par la richesse des documents de la vallée du Nil, viennent s'y instruire et y prendre des notes, souvent sans ordre et sans méthode, et les publient dans les revues de leur pays. Dans bien des cas ces documents sont pour ainsi dire perdus pour la science; car leur recherche au milieu de publications si nombreuses devient un labeur considérable, et la connaissance de la bibliographie égyptologique est presque aussi difficile que l'égyptologie elle-même. A côté de ces notes, de ces brochures pour ainsi dire innombrables, sont, il est vrai, de grandes publications et des monographies détaillées qui font le plus grand honneur à leurs auteurs. Mais il est bien peu d'ouvrages qui soient complets, souvent ils ne renferment qu'un choix de documents fait suivant les idées personnelles de l'auteur, en vue de la recherche d'une question spéciale.

En dehors de cet inconvénient très grave pour les savants qui travaillent en dehors de l'Égypte, il en est un autre non moins sérieux pour les égyptologues qui parcourent la vallée du Nil. La plupart des textes aujourd'hui visibles ayant été plus ou moins signalés ou publiés, il est fort difficile de savoir quels sont les monuments inédits, et ce désordre entraîne une grande perte de temps et d'activité de la part des visiteurs de l'Égypte.

Le "Catalogue des monuments et inscriptions de l'Égypte antique" renfermant tous les documents connus jusqu'au jour de sa publication, il sera dès lors aisé de se rendre compte de la valeur scientifique d'un monument, de l'intérêt d'un document nouvellement découvert.

En dehors de ces avantages surtout sensibles pour les archéologues qui visitent l'Égypte, les savants que leurs occupations retiennent à l'étranger trouveront aussi leur bénéfice dans cette publication qui leur fournira une foule de documents inédits pour alimenter leurs travaux.

Il ne serait pas juste de penser que les sociétés, les revues, qui font de l'égyptologie leur principal sujet d'études, seront absorbées par cette publication et réduites à l'impuissance. Bien au contraire elle leur vient en aide, car chaque année les nouveaux volumes leur apporteront des documents inédits laissant aux savants étrangers le soin de les discuter et de les traduire. Plus tard, quand ce long travail de relevé sera terminé, les volumes de supplément fourniront périodiquement les résultats des récentes découvertes, et cette série réunie aux catalogues scientifiques des musées égyptiens constituera à proprement parler "les annales de l'antiquité égyptienne". Il est vrai que les nombreuses collections des musées étrangers n'y seront comprises. Mais il sera toujours aisé pour les directeurs de ces musées de faire la description de leurs collections dans des publications analogues, et l'histoire de l'Égypte sera ainsi, à tout jamais, sauvée de la destruction.

Le nombre des égyptologues est fort restreint; c'est à peine si à ce jour nous en pouvons compter cinquante, et sur ce petit nombre, beaucoup ne peuvent venir en Égypte, retenus qu'ils sont par leurs devoirs à l'étranger. C'est donc avec le concours de quelques savants seulement que notre œuvre peut être entreprise. Mais nous ne saurions trop inviter les étrangers à venir collaborer à ce travail d'un intérêt

si général. Il ne s'agit pas ici d'un ouvrage ayant une portée politique, mais bien d'une œuvre internationale, intéressant la science universelle et dans laquelle la nationalité des auteurs importe peu.

Afin de faciliter aux égyptologues de toutes les nationalités la part que nous espérons leur voir prendre dans cette publication, nous acceptons les manuscrits écrits dans les quatre langues principales de l'Europe: l'allemand, l'anglais, le français et l'italien, priant les savants qui ne sauraient écrire dans l'une de ces langues de rédiger leur texte en latin.

Le Service des antiquités ne prend sur lui aucune responsabilité relativement à la valeur scientifique des ouvrages, chaque auteur publiant sous son nom est personnellement responsable de ses œuvres. Il en corrigera lui-même les épreuves. Il nous serait en effet impossible de vérifier toutes les copies, d'examiner à fond chacun des mémoires.

Nous espérons que cet appel à la bonne volonté de tous les savants sera entendu et que chaque année nous verrons des égyptologues de toutes les nationalités venir concourir à cette œuvre. Il en résultera, nous en sommes certains, une émulation très bénéficiaire aux intérêts de la science.

Le "Catalogue des monuments et inscriptions de l'Égypte antique" comprendra la description de tous les pays qui jadis firent partie du domaine des Pharaons. Mais il était nécessaire de diviser le sujet afin d'être à même de l'aborder de plusieurs côtés à la fois: nous avons donc partagé ces vastes régions en provinces, quitte à diviser les provinces elles-mêmes en districts suivant les besoins. Nous avons établi les divisions suivantes pour les provinces: 1° Haute Égypte. 2° Moyenne Égypte. 3° Basse Égypte. 4° Nubie. 5° Les Oasis. 6° Les côtes de la Mer rouge. 7° L'Égypte asiatique.

L'examen de ces sept provinces peut être mené de front, mais afin qu'il ne s'introduise pas de désordre dans la publication, il est nécessaire de fixer à l'avance le point de départ de chacune des séries de volumes, autrement dit le district par lequel les études seront commencées dans chaque province.

1° Haute Égypte.—La série commence à la frontière de Nubie et les matières se suivront en descendant le cours du fleuve.

2° Moyenne Égypte.—Cette province aura pour frontière au Sud la limite méridionale de la Moudirîeh de Siout et ou Nord la limite septentrionale des Moudirîehs de Beni Souef et du Fayoum. Les volumes se succéderont également en suivant le cours du Nil.

3° Basse Égypte.—Cette province comprend tout le Delta, depuis la frontière indiquée ci-dessus pour la Moyenne Égypte. Elle est limitée à l'Est par le canal de Suez, à l'Ouest par le désert.

4° Nubie.—Pour la Nubie l'ordre sera inverse, la situation politique de ce pays ne permettant pas de commencer les travaux au Sud de Wadi Halfa. Le premier volume comprendra donc l'île de Philé et le travail se fera en remontant le cours du Nil.

5° Les Oasis.—Cette province comprend la vaste région comprise entre la frontière de la Tripolitaine et la Mer méditerranée au Nord, les sables du désert à l'Est et à l'Ouest. Au Sud sa frontière dépend des conditions politiques du Soudan. Il semble donc rationnel de commencer les travaux par le Nord, c'est-à-dire par l'Oasis de Siwah ou d'Ammon.

6° Les côtes de la Mer rouge.—Cette série comprendra tout le littoral de la mer, depuis Suez jusqu'à Souakin et au-delà. Elle renfermera également les vallées qui partant du désert viennent déboucher sur la côte.

7° L'Égypte asiatique—comprenant tous les territoires égyptiens situés à l'Est du canal de Suez, le Sinai et le désert voisin de la frontière de Turquie. Cette série aura pour point de départ les pays situés aux environs de Péluse, en face de Port Saïd.

Le désert situé à droite et à gauche de la vallée du Nil sera décrit dans la 5^e et la 6^e série avec les oasis et les côtes de la Mer rouge.

Ainsi tracé dans ses grandes lignes le travail est parfaitement défini, il peut être commencé en sept points différents à la fois, chaque région présentant ses avantages et ses défauts. Ainsi le relevé de la Nubie et de la Haute Égypte ne peut être fait par des Européens que pendant la saison froide, tandis que le climat de la Basse et de la Moyenne Égypte permet de travailler en toute saison.

L'une des grandes difficultés que nous rencontrons dans l'accomplissement de ce travail est le défaut de cartes figurant avec exactitude les montagnes qui bordent la vallée du Nil. Car, la majeure partie des antiquités se trouvant en dehors de la vallée, il est indispensable de compléter les cartes actuelles pour y pouvoir marquer la position des sites antiques.

Le "Catalogue des monuments et inscriptions de l'Égypte antique" comprendra la publication in extenso de tous les monuments connus jusqu'à ce jour. Les publications antérieures seront révisées et corrigées s'il y a lieu. Elles seront reproduites sous le nom de leur auteur, chacun de nos collaborateurs signera ses travaux ou indiquera dans une notice sommaire les corrections qu'il a cru devoir faire subir aux textes déjà publiés.

Palais de Gizèh (Caire), le 15 juin 1893.

Le Directeur Général des Antiquités de l'Égypte
J. DE MORGAN.

PETRIE'S HISTORY OF EGYPT.—Messrs. Methuen will bring out soon Prof. Petrie's "History of Egypt, from the Earliest Times to the Hyksos." It is the first instalment of a history of Egypt in six volumes, intended both for students and for general reading and reference. In the earlier periods every trace of the various kings will be noticed, and all historical questions will be fully discussed. The special features will be that the illustrations will be largely photographic, or from facsimile drawings, and, so far as practicable, of new material not yet published; that references will be given to the source of each statement and monument, thus affording a key to the literature of the subject; and that lists are supplied of all the known monuments of each king. The second volume will cover the eighteenth to the twentieth dynasty; the third the twenty-first to the thirtieth dynasty; the fourth will be devoted to the Ptolemaic rule; the fifth to Roman rule; and the sixth to Mohammedan rule. This last will be written by Mr. Stanley Lane-Poole.—*Athenæum*, March 24, 1894.

EGYPTIAN GARDENS.—Prof. Charles Joret, of Aix, read a paper at a meeting of the *Acad. des Inscriptions* (Oct. 27) on Egyptian Gardens. As early as the XVIII dynasty, the texts and monuments show that the gardens included orchards with water basins for watering and

with abundance of fruit trees. Under the Ptolemies the gardens were enriched with a large number of decorative plants and flowers, heretofore unknown in Egypt, which transformed them into elaborate flower gardens.—*Rev. Arch.*, 1894, I, p. 112.

NEGROES AND WHITES IN PRIMITIVE EGYPT.—Mr. Boscawen has some remarks in the *Babylonian and Oriental Record* on the mixture of the white and negro races in the earliest period of Egyptian history as shown by Mr. Petrie's excavations in the necropolis of Medun (III Dyn.). The burials show the existence of two races, an aboriginal and a colonist population, the one gradually erasing or modifying the former. The burials in a crouching attitude, as attested by the skeletons in the Museum of the College of Surgeons (London), are distinctly those of a negro population, while the mummied bodies are of a **Europo-Asian** type. The examination of these remains by Dr. Gaston reveals, however, another important feature—namely, that the two races must have lived together for some time and that intermarriage was beginning to affect the higher type. This is particularly noticeable in the case of the statue of Ra-hotep, in the Museum of Gizeh, where we have many traces of the infiltration of the negro element in this official, who had risen from the ranks and married a woman of the pure dynastic Egyptian type. Upon ethnologic grounds, the entrance of the dynastic white Egyptian into the Nile Valley must considerably antedate the pyramid age.

Mr. Boscawen finds reason to believe that the south of Arabia is the point of convergence of ancient culture, and that its trading communities are the source of the dynastic Egyptian civilization and the Babylonian culture of Eridu—the earliest Babylonian city. The parallels between these two civilizations are appearing ever more marked. The circumstances of the foundation, by emigrants, of Eridu in Babylonia, and This, or Abydos, in Egypt, in the midst of an aboriginal population of lower civilization, are very similar. If, then, Arabia is the source of both emigrations, it becomes extremely important to carry on the work begun by Doughty, Euting and Glaser.

INSPECTORS OF MONUMENTS.—It was announced at a meeting of the Society for the Preservation of the Monuments of Ancient Egypt, on February 23, that M. de Morgan had informed them through the Foreign Office that two official Inspectors of Monuments had been appointed, one a Frenchman, M. Foucard, the other a native of Egypt, Ahmed Effendi Najib, each of whom was to have alternate charge of Lower and Upper Egypt. Provision was also made for twelve sub-inspectors.—*London Times*, Feb. 24.

THE BOOK OF THE DEAD.—In the December number of the *New Review*, there is an article by M. Marsham Adams entitled "The Mystery of Ancient Egypt," in which he puts forth the theory that the Great Pyramid, more particularly in its internal arrangements, symbolises the doctrines contained in the "Book of the Dead," in the order in which those doctrines are presented in the Turin papyrus. In the February number of the *Babylonian and Oriental Record*, Mr. A. C. Bryant shows the fallacy of such a theory for several reasons. (1) The Book of the Dead is not an organic whole; there was no recognized order or fixed number of chapters. (2) The arrangement in the Turin papyrus is quite late. One of Mr. Bryant's arguments, however, is quite fallacious. For reasons too long to recapitulate, he says that the identification of the deceased with Osiris forms the key-note of the entire "Book of the Dead," and that this doctrine cannot be supposed to have existed before c. 3566 B. C. The Book of the Dead cannot, therefore, have existed in any form before that date, which is considerably later than the date of the Great Pyramid. Now, it is evident that Mr. Bryant is not aware of the fact that certain parts of the Book of the Dead date as far back as the third and fourth dynasties: and it so happens that in the next item of this number of the JOURNAL, some of the proofs of this fact, reported by Mr. Le Page Renouf, are referred to. Certainly one thing is clear, the Book of the Dead was not used as a ritual, but such a ritual is to be found in monuments later than the fifth dynasty.

CHAPTER LXIV OF THE BOOK OF THE DEAD.—M. le Page Renouf read at a meeting of the *Society of Biblical Archæology*, a translation of a very early chapter of the Book of the Dead—chap. LXIV. A rubric tells us, "This chapter was discovered at Hermopolis, upon a slab of alabaster inscribed in blue, at the time of King Menkara, by the royal prince Hartalaf, when he was journeying for the purpose of inspecting the temples, and he carried off the slab in the royal chariot when he saw what was on it." Menkara is a king of the fourth dynasty. The rubric of another copy tells: "This chapter was discovered in a plinth of the god of the Henu-bark, by a master builder of the wall in the time of King Septa, the victorious." No other composition claims a remoter antiquity.

The rubrics show the work to be very remarkable. In the Turin papyrus it is headed, "Chapter of going out by day, sole chapter." Another papyrus heads it, "Knowledge of going out by day in a single chapter," indicating that this contains the complete knowledge required by the spirit at the day of resurrection. This is confirmed by the statements of later texts, and by a note at the conclusion, which

runs, "To be said on coming forth by day, that one may not be kept back on the path of the Tuat (or Hades), whether on entering or on coming forth; for taking all the forms which one desireth and the soul of the person die not a second time. If then, this chapter be known the person is made triumphant upon earth (and in the Nether-world), and he performeth all things which are done by the living." The value of such a record as this in our enquiries with the history of religious thought cannot but be great.

Mr. Renouf thus translates the first passages, and it may be taken as a sample of the whole: "I am yesterday, to-day and to-morrow, for I am born again and again; mine is the unseen force which createth the gods and giveth food to those in the Tuat at the West of heaven. I am the Eastern rudder, the Lord of two faces who seeth by his own light, the Lord of resurrection who cometh forth from the dark and whose birth is from the house of death."

Mr. Renouf here remarks, "In reading this and almost every other chapter of *The Book of the Dead*, it is absolutely necessary to bear in mind that different divine names do not imply different personalities. A name expresses but one attribute of a person or thing, and one person having several attributes may have several names. It is not implied in this chapter that the Sun is the Nile or Inundation; but that the same invisible force which is manifested in the solar phenomena is that which produces the Inundation. But He has many other names and titles, *e. g.*, *One whose force is concealed or unseen*. It is a theological term, frequent at all periods of the Egyptian religion, and implies that the Deity is not to be confounded with its external manifestation. The sun that we see hides as truly as it reveals the sun-god, who, as this chapter shows, has other manifestations."

The following sentence is remarkable: "Let thy paths be made pleasant for me; let thy ways be made wide for me to traverse the earth and the expanse of heaven. Shine upon me, O gracious power, as I draw nigh to the Divine words which my ears shall hear in Tuat; let no pollution of my mother be upon me; deliver me, protect me from him who closeth his eyes at twilight and bringeth to an end in darkness."—*Biblia*, April, 1894.

MR. FLOYER'S WORK ON NORTH ETBAI.—Mr. Floyer has published a book entitled: *Étude sur le Nord-Elbai entre le Nil et la Mer Rouge*. In 1891 a scientific expedition under the command of Mr. Floyer was sent by the late Khedive to explore and survey the desert between the Red Sea and that part of the Nile which flows between Esneh and Assuan. The result is a report which takes the form of an elaborate work on the region that was surveyed. Mr. Floyer begins with the

geography of the district and an account of the course taken by the expedition. Then come chapters on the antiquities of the country, on the Phœnicians whom Mr. Floyer believes to have once settled there, on its botany, mineralogy, and geology, on the ancient commerce of the Red Sea, on the astronomical determination of certain points in the valley of the Nile, and on the working of the Nubian gold-mines in the ninth century. The whole district is, indeed, full of the remains of the mines of gold and other metals worked by the Pharaohs, the Ptolemies, and their successors, as well as of the settlements in which the miners and their overseers lived. Mr. Floyer explored some of the ancient mines, and his description of them is not the least interesting part of his book. Mr. Floyer is a strong advocate of the effects of drifting sand in producing the present configuration of the desert, and he is inclined to regard the introduction of the camel into it by the Arabs as a leading cause of its existing treeless and waterless condition. The camel is the enemy of woods and forests, which are ruthlessly destroyed for its sake, and the disappearance of trees brought with it the disappearance of water also. In two or three places, however, Mr. Floyer still found basins of pure water. The book is enriched with excellent maps and photographs.—*Acad.*, Oct. 7.

AN EGYPTIAN WILL OF 189 A. D.—Prof. Mommsen read a paper before the Berlin Academy of Sciences on an Egyptian will of the year 189 A. D., found in the Fayum and now in the Egyptian Museum of Berlin. It is a Greek translation of a Latin original. The testator is Caius Longinus Castor, Γάιος Λογγίνος Κάστωρ, and the translator Caius Lucius Geminianus, whose office is Νομικὸς Ῥωμαϊκός. The place where it is dated is Karanis, in the Arsinoite nome, and it was opened in Arsinoe. The date is November 17, 189. The will was opened Feb. 21, 194. The text is interesting for legal terminology, and Prof. Mommsen's examination and commentary are, of course, extremely thorough.—*Sitzungsb. d. k. pr. Akad. d. Wissenschaften*, Jan. 19, 1894.

EGYPTIAN PAPYRI IN GENEVA.—A collection of Egyptian papyri, recently purchased by subscription for the Geneva Public Library, is being examined by M. Jules Nicole. He has discovered fragments of the Iliad and the Odyssey, the former comprising portions of Books XI and XII, presenting great variations from the received text. There is also a passage of Euripides' "Orestes," a thousand years older than any MS. hitherto known. M. Nicole has likewise found a didactic elegy on the stars, an idyll on Jupiter and Leda, and historical and scientific compositions. In Christian literature there are liturgical passages, portions of the Bible with or without commentary, and later documents on Eastern Church History. There is also a letter

from a bishop or a superior of a monastery to the postal authorities, which asks for horses to be provided for three months for the use of the monks in travelling, "for they are Orthodox."—*Acad.*, Oct. 14.

GIFT TO THE UNITED STATES.—Last year the Khedive presented to several European nations selections of the objects found at Thebes the year before, in the great collection of sarcophagi of the High Priests of Ammon. Lately the Khedive has presented a collection of so-called "duplicates" belonging to this collection, to the United States, through the American Diplomatic Agent and Consul-General. Five cases filled with antiquities have been dispatched to the Smithsonian Institution at Washington. The features of this gift collection are six or seven elaborately inscribed sarcophagi of wood, and a box three feet square by seven feet in length, which contained the mummy of the "great lady of Ashron, the musician with the hand for Maut," and the great singer of the retinue of Ammon Râ, king of the gods. The head of this coffin bears a representation of a solar disk in the arms of the goddess of heaven. A smaller or inner coffin portrays the deceased in the presence of Osiris, and shows a figure of a goddess with a double head, one a ram and the other a crocodile, and the great singer drinking of the water of life poured from a resplendent vessel by a goddess. A representation of the pillars of heaven rounds out the tableau. There is also the sarcophagus of another singer, Ammon Râ. The coffin of Amenhotep is interesting because he was not only a priest, but a famous scribe. Least important of the other burial cases is that of Paamen. Fully a hundred sepulchral articles of ornament or worship complete this gift.—*The Collector*, New York, Nov. 1.

MISS EDWARDS' COLLECTIONS.—Prof. Flinders Petrie has for some time past been engaged in classifying and arranging his own and the late Miss Edwards' collections of Egyptian artistic objects at the University College, Gower street. The authorities have assigned to Prof. Petrie a long gallery at the top of the south wing of the building, which is excellently adapted for exhibition purposes. The roof being low, the cases are all well lighted, and the general effect of the gallery avoids the sensation of funeral vaults experienced in so many museums. A copious and well-selected collection of works on Egyptology will be placed in the gallery itself for consultation by students. This is an arrangement that should prevail in all museums, and it is to be hoped that Prof. Petrie's example may be followed elsewhere.—*Athen.*, Oct. 7.

GEOGRAPHIE ANCIENNE DE LA BASSE-EGYPTE.—*Par le Vic. Jacques de Rougé.*—This is a valuable account of what is known up to the

present moment of the ancient geography of Lower Egypt. It has all the lucidity and orderly arrangement that we are accustomed to meet with in French scientific works. The author, a son of the famous French Egyptologue, has made full use of the discoveries of Prof. Flinders Petrie and the Egypt Exploration Fund, and he has published for the first time the geographical names of the Delta given in a Coptic ecclesiastical MS. now preserved in Oxford. Where his materials are wanting he maintains a prudent silence; Avaris, for instance, the Hyksos capital, is not even mentioned in his pages. The book is indispensable to all who are interested in ancient Egyptian geography, and we hope that the author will follow it up with a similar work on the geography of Upper Egypt.—*Acad.*, Oct. 7.

GRAFFITI OF HAT-NUB.—About thirty copies of the *Graffiti of Hat-Nub*, printed last year by Mr. Fraser for private distribution, have now been placed for sale in the hands of Messrs. Luzac of Great Russell street. These graffiti, discovered in 1891, were very carefully copied by Messrs. Blackden and Fraser. They are of great historical and palaeographical importance, ranging from the VIth to the XIIth Dynasty. Those of the Middle Kingdom are lengthy, and furnish curious information about the administration of the nomes and the state of the country in the time of the XIth Dynasty. They are generally dated in the reigns of the nomarchs, and it is equally remarkable that an oath is sworn "by the life" of the nomarch Nehera instead of the king. By the aid of these graffiti Mr. Newberry has been enabled to reconstruct the genealogy and succession of most of the nomarchs whose tombs are at El Bersheh, as will be seen in the next Memoir of the Archaeological Survey, conducted under the auspices of the Egypt Exploration Fund.—*Academy*, March 3.

PROF. SAYCE'S LETTERS.—We select the following from Prof. Sayce's letters on his annual Egyptian trip:

ABU-SIMBEL, Jan. 20, 1894.

I hurried up the Nile this winter rapidly so that the only noteworthy event of my voyage from Cairo to Assuan was the discovery of early quotations from the Gospels in an ancient rock-church about a mile and a half to the north of the ruins of Antinoopolis. The church is in the quarries above a ruined Coptic monastery, and the quotations are from the beginnings of the Gospels of Matthew, Luke and John. The forms of the letters are of the fourth or fifth century.

While at Assuan, I visited a colossal Osiride figure in the granite quarries about a mile and a half to the north of Shellal, which was discovered by Major Cunningham, and last year was cleared of sand by M. de Morgan. It lies on its back, at a little distance south of a

stele, in which Amenophis III describes the execution of a "great image" of himself. In the neighborhood both of the stele and of the colossus are huge unfinished sarcophagi, of which I counted eight, of the same size and form as the sarcophagi of the sacred bulls at Sak-karah. Their unfinished state shows that the death of Amenophis III interrupted the work of completing them; and we may, therefore, infer that during the reign of his successor, the "heretic-king" Khun-Aten, no more Apis-bulls were embalmed.

At Kalabsheh we spent two days, and discovered three Greek poems. The longest of these, in thirty-four lines, is specially interesting, as it mentions an otherwise unknown deity, called Breith (or, as Prof. Mahaffy would read the name, Sebreith), whom it identifies with Mandoulis, the native god of Kalabsheh. The lines in which the name occurs are the following:

ὥς ἡμαρ καὶ νύξ σε σέβει· ἄραι δ' ἅμα πᾶσαι
καὶ καλέονσί σε Βρειθ καὶ Μάνδουλιαν συνομαίμους,
ἄστρα θεῶν ἐν σῆμα κατ' οὐρανὸν ἀντέλλοντα.

The two gods are apparently identified with the constellation of Kaster and Pollux, and it would seem that an oracle of Mandoulis (Mauri in the hieroglyphs) was established in the temple.

I made a list of all the Greek inscriptions at present visible on the walls of the temple of Meroe; they amount in all to ninety-six.

At Dendûr I collated the published hieroglyphic texts with the originals, and found that the god whose name has been read Ar-hem-snefer should really be Ar-hon-snofer; and at Gerf Hossén I discovered some hieroglyphic graffiti on a boulder of rock at a little distance south of the temple. At Dakkeh and Kûbban we spent some time, and I busied myself in copying the texts in the portion of the Temple of Dakkeh erected by the Ethiopian king, Arq-Amon. Mr. Somers Clarke's examination of the structure proved that it had been finished before the buildings of Ptolemy Euergetes II were added to it; he fixes the date of Arq-Amon, and shows that he may easily have been the Eugamenes of Diodoros (iii. 6), who was a later contemporary of Ptolemy Philadelphos. As Arq-Amon is represented in one place offering homage to the deified "Pharaoh" of Senem or Bijeh, it is clear that the supremacy of the Ptolemy was still recognized by the Ethiopian prince as far south at all events as the First Cataract. In the latter part of the reign of Ptolemy Philopator, however, the Ethiopian kings not only made themselves independent, but even claimed dominion over Upper Egypt, and at Debot Azkhal-Amon, a successor of Arq-Amon, appears as an independent monarch. The temple built

by Askhal-Amon at Debot is a close imitation of that of Arq-Amon at Dakkeh; and, as at Dakkeh, it was added to by Euergetes II.

MEHENDI, Feb. 5, 1894.

After leaving Abu-Simbel, we spent a day in the temple of Hor-mhib or Armais at Gebel Addeh; and on the cliff a little to the south of it I discovered a *graffito*, which referred to the temple as being in "the country of Bak." In Bak I would see the classical Aboccis, rather than in Abshek, with which it is usually identified. The inscriptions I have copied, moreover, go to show that Amon-heri, and not Abshek, was the name of the city built by Ramses II at Abu-Simbel.

Faras, south of Mashakit, but on the opposite bank, stands on the site of a Roman town. The remains of a Coptic church still exist there; and in the walls of its old Saracenic fortress I found stones sculptured with hieroglyphs, as well as portions of the uraeus-frieze of an Egyptian temple. At some distance from the river are three tombs of an early period excavated in a low sandstone hill; the central one has been turned into a Coptic church, and the walls are covered with early Coptic inscriptions. Prof. Mahaffy and myself spent a couple of days in copying them. One of them is dated "the 8th day of Khoiak, the 10th (year) of the Indiction of Diocletian." Most of them are written in red paint, and have the form of pagan *proskynēmata*.

After leaving Faras we visited the ruined temple of Serra, which Capt. Lyons has been excavating. I copied all the inscriptions that are visible, including the cartouches of the Cushite countries conquered by Ramses II, by whom the temple was built. On the north side of the entrance is a row of cartouches of the Asiatic countries he claims to have subdued. One of the texts states that the place was called User-Mā-Ra-Ser-Shefi.

In the temple of Thothmes III at Wadi Helfa we found several Karian *graffiti* and a few Greek ones. The Greek texts, however, belong to the Ptolemaic age, with the exception of one half-obliterated inscription which I discovered the day before our departure from Wadi Helfa, and which is proved, by the forms of the letters, to go back to the age of the famous inscriptions of Abu-Simbel. One of the Karian *graffiti* is of considerable length, and the number of them suggests that at one time a body of Karian mercenaries was encamped on the spot. The walls and columns of the forecourt of the temple also contain numerous *proskynēmata* of a much earlier epoch. One of them is dated in the sixth year of Si-Ptah, the last king of the XVIIIth Dynasty; in another, dated in the third year of the same king, the writer, Hora, calls himself "the son of the deceased Kam," of the

harem of the palace of Seti II." ; while the author of a third is described as an ambassador of Si-Ptah to Khal or Northern Syria and Cush.

While we were at WADI HELFA we made an excursion to the great Egyptian fortress of Matuga *q. v.*, about three miles to the south of Abusir. On an island, a little to the south, are the ruins of a Coptic church called Darbê. On the north side of the fortress is the site of an old city ; and below it, close to the river, are brick tombs, which do not seem to have been disturbed.

After leaving Wadi Helfa on our downward voyage, we first visited three ruined Coptic churches on the western bank, without, however, finding anything to reward us. Then we explored a ruined town opposite SERRA. Here we found five rock-tombs on the south, the remains of an ancient quay, walls of fortification of the Roman age, and three Coptic churches—one in the town and two outside it, one of the latter being to the south and the other to the north of the walls. Close to the last are quarries of the Egyptian period.

Opposite Faras is another Coptic ruin, which again yielded nothing to our archæological curiosity ; but we were more fortunate at ERMENNANAH (on the eastern bank), where I had noticed a tomb in the rock when we came up the river. On the rocks behind the village I found the name of Hor-m-hib. The tomb turned out to be of the same character as those of Wadi Helfa ; but just below it were two niches for figures cut in the rock, with steps leading to them. At a little distance to the north of this, and at an angle of the cliff, I discovered a large and well-preserved stele, dedicated to Horus of Ma-nefer by a "governor of Nubia," who lived in the time of the XIXth Dynasty.

On the western bank, opposite Ermennah, is the site of what must have been a very large town. While wandering over it, I picked up a fine diorite axe. Capt. Lyons has found a similar one at Matuga.

We spent a day and a half at QUASR IBRIM. Above the text of Seti II. the Pharaoh is represented in the act of slaying an enemy, while his empty chariot is being borne away from him by a couple of horses. On the right hand side of the inscription Amen-m-apt, "the royal son of Kush," offers a song of praise to his victorious lord.

Close to the stele Prof. Mahaffy found a Karian *graffito*, and there are a good many Coptic inscriptions scratched on the rocks. The summit of the hill to the east of the fortress is covered with brick tombs, and the remains of an old town lie on the northern slope of the mountain on which it stands. At the northwestern corner of the mountain I found a somewhat enigmatical inscription in Greek letters.

After Qasr Ibrim our next visit was to the interesting speos of Thothmes III, in the district of Dûgenosra, to the south of the village Ellesiyeh. Lepsius has published the inscriptions belonging to it. There is a tomb near it, with the cow of Hathor sculptured on either side of the entrance. The old Roman fortress I have described in my last letter lies on the opposite side of the Nile, a little to the north of the Ellesiyeh; we visited it again on our way down, and found that a town of considerable size had once existed to the south of it. We picked up Roman pottery and blue porcelain on its site.

Next we passed a morning at DIRA. To the south of the speos of Ramses II, I came across a large tomb, without inscriptions, however, and to the north of the speos a series of monuments, the first of which—a stele of Amen-m-hib—is already known. North of this there are a good many hieroglyphic and hieratic *graffiti* on the cliffs, as well as two curious monuments which deserve a special description. One of these is a stele, the centre of which is occupied by two sitting animals, which look like pug-dogs set face to face: on either side is a hieroglyphic inscription, from which we learn that the author's name was Anup-a. The other monument is the most northerly of those we met with. On a rock is a long and well-preserved hieratic text, which records the name and titles of a certain "superintendent of the treasury." Immediately in front of this is a niche, in which an image once stood. The niche is now filled with bowls and offerings of wheat or durra, which I was told were given to "the Sheikh Isû," who expected that I also should not quit the spot without a suitable "bakshish." It is evident, therefore, that when paganism was superseded by Christianity the old pagan image became an image of Christ, and that upon the triumph of Islam, though the image was destroyed, the ancient cult still continued to survive. It is an instructive instance of the continuity of religious practices, if not beliefs, in the valley of the Nile.

This afternoon we explored the ruins of the fortified Coptic city of MEHENDI. In the centre of it is a Coptic church, which Lepsius (in his *Briefe*) has mistaken for the residence of a Roman governor. The foundations of the southern gate are of Roman construction, but some of the stones have been taken from an Egyptian temple, which the sculptures upon them show to have been of a good period. Possibly they belonged to the old temple of Thoth at Penebs, the Hiera Sykaminos of the Greeks, since the temple of Maharraqa, which now exists on the site, is of late Roman workmanship. Maharraqa is only two miles to the north of Mehendi. On the rocky cliff at the south-eastern corner of the latter place I found some drawings, of Christian origin

but spirited design. Among them are the dove with an olive branch in its mouth, the Good Shepherd, and a large *cruz ansata*, the ancient Egyptian symbol of life, employed in place of a cross.—A. H. SAYCE, in *Academy*, Feb. 24.

ABUSIR.—DISCOVERY OF MASTABA OF PTAH-SHEPSES.—In Lepsius' plan of the ruins of Abusir, the mound nearest to the pyramid of Sahu-râ, King of the fifth dynasty, is marked as *Pyramid No. XIX*. But M. de Morgan, during his recent excavations at Sakkarah, decided that, owing to its rectangular form and its central depression, it could not be the remains of a pyramid. An attempt to solve the problem led at once to the discovery of some square piers, which proved this monument to be an immense mastaba. It was found to be the tomb of one Ptah-Shepsés, who lived under King Sahu-râ of the fifth dynasty. The importance of this discovery is so unusual that a full description will be given, taken from M. de Morgan's paper in the *Revue Archéologique* for Jan.—Feb., 1894.

The mastaba of Ptah-Shepsés (fig. 2) measures 45 m. in length by about 25 m. in width, and is composed of seven halls, one of which is a large court, 24 m. long by 19 m. wide, encircled by a colonnade of twenty heavy square piers. This court is rude in style, while all the other chambers, A, B, C, D, E, F, far smaller in size, are highly decorated. The court not having been fully excavated, it is not known whether it was entirely covered, or only the space between the line of piers and the E. W. and S. walls. There may have been other piers in the centre: otherwise the span of 11 m. is too great for the stone architraves which alone were used in monuments of the Early Empire. Like all works of this period, this tomb was constructed of two kinds of stone. The mass of masonry was of a local, greenish-gray, friable calcareous stone: the facings and all the more careful masonry was of Tourah stone, a white calcareous formation, compact and unstratified, which took a good polish, was not hard to carve, and was far more resistant. In fig. 1 the single lines represent the Tourah stone, the crossed lines the local stone, the dotted lines where there remain but traces of the construction.

Two doors led into the great court. One (P_2) on the south side led into a street running E-W, which probably served for a large number of tombs; the other (P_1) ended in a *cul-de-sac*. Both are well-nigh destroyed. On each of the columns of the south door was a representation of the defunct and his titles. He was a very high functionary, "chief of all the works of the King," i. e., Minister of Public Works. The architraves that still lie near the columns bear the complete titles of the defunct.

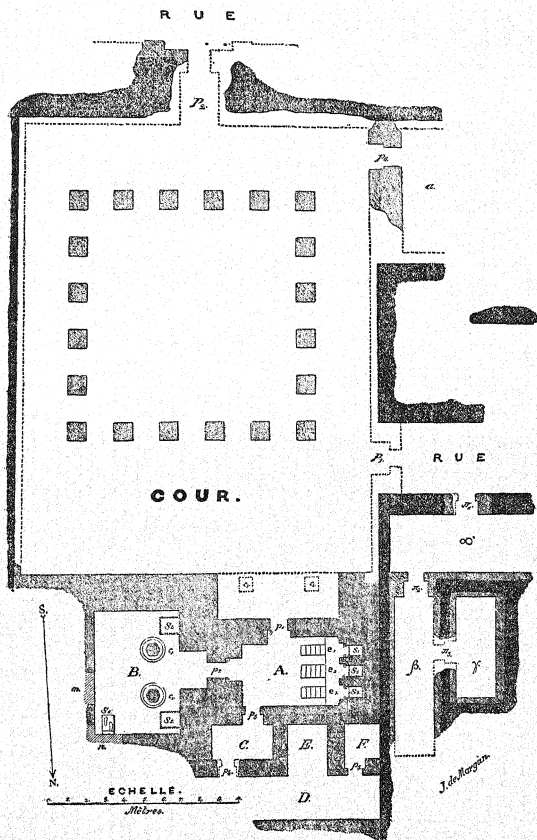


FIG. 2.—PLAN OF THE MASTABA OF PTAH-SHEPSÈS.

Passing southward across the court we came to a portico, 6.60 m. wide by 2.40 m. deep, pierced in the wall, now almost destroyed. This portico was placed before the entrance to the tomb chambers. The wall of the court east of the portico¹ bears bas-reliefs for a width of 1.57 m. The rest of the wall as far as the N. W. corner has inscriptions and representations. Within the portico, to the right of the door, is the image of Ptah-Shepsés, carried by his servants on a primitive palanquin. To the left of the door are interesting scenes of the transportation of colossal statues of the defunct to his tomb. They are placed on a wooden sled, whose front end is raised; sixteen men, two by two, pull the cable, while one man leaning in front of the sled pours water (Pl. 1, *Rev. Arch.*). Such representations are familiar in later monuments. This has a special interest from its early date, and the fact that important fragments of the colossal statues here represented have been found.

Passing through door *p1*, which was single, we enter hall A, 5.15 m. long by 3.60 m. wide. This hall contains at its W. end a triple *naos*, preceded by a stage and three small staircases (*e*₁, *e*₂, *e*₃), placed opposite niches. They were formerly occupied by statues (*s*₁, *s*₂, *s*₃) of which no trace has been found, and were closed by a double door, whose hinges still remain. The walls of hall A are completely covered with reliefs representing the details of private life: such as the care of domestic animals, oxen, goats, gazelles, antelopes, poultry (ducks, geese, pigeons); agricultural scenes, artisans at work; cabinet work, sculpture, engraving, pottery, metal founding, etc. Then come rows of servants, the produce of the defunct's property—grains, fruits, cattle.

A double door cut in a brick wall (3.30 m.) covered with bas-reliefs representing Ptah-Shepsés and his servants, leads from hall A to hall B. This hall, larger than the preceding (4.40 m. long, 6.35 m. wide), is not in so good preservation, but it has a capital interest for the history of Egyptian architecture. The ceiling was originally sustained by two lotiform columns, placed, curiously enough, not along the axis of the hall, but far nearer the door. In these lotiform columns the capitals are formed of a bunch of six lotus flowers half-opened, between each of which is a much smaller lotus. These are all bound together at their base by five bands, which form the annuli. To each of the lotus flowers corresponds a heavy stem; immediately under the annuli are the small short stems of the intermediate flowers, filling in the space between the main stems. The shaft has a maximum diameter of .64 m. The section of its six lobes is not circular, but

¹ M. de Morgan uses the term "peristyle" incorrectly in describing this portico.

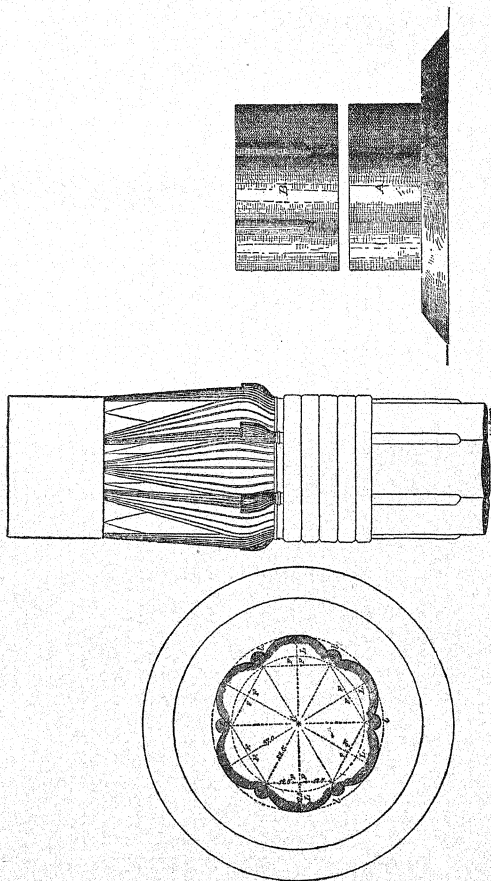


FIG. 3.—LOTIFORM COLUMN IN MASTABA OF PTAH-SHEPSÊS.

elliptical. The material is Tourah stone, which was originally brilliantly painted; the shaft a sky blue; the pedestal brown; the secondary stems alternately yellow and brown; the five annuli, green, red, blue, red and green; the base of the flowers blue, rising from yellow line. Between the large petals, painted blue with yellow lines, are other smaller petals of light green, while the ground of the flower was red. In the small flowers the large petals and the base are green, the base line yellow and the secondary petals red and brown.

Representations of aedicula, decorated with lotiform columns, are found in tombs of the VI dynasty (mastaba of Ti and of Mera), but no architectural example of the time of the Ancient Empire had hitherto been found. M. de Morgan says that the invention of this form had been ascribed to the New Empire, but a considerable number of such columns have been found in tombs of the XI, XII and XIII dynasties. But in any case the lotiform columns of the mastaba of Ptah-Shepsés are far the earliest known and of great historic interest.

Hall B originally contained three statues. From the few remaining fragments, they would appear to have been standing statues, like those reproduced in the reliefs. The walls are covered with painted reliefs (Pl. II, *Rev. Arch.*). On the S. wall is a fleet of row-boats with raised poop and prow, where the boatswain stands in a central cabin giving his orders, and two men ply long oars at the stern. Donkeys, goats and cows are attached on deck. At the entrance to the cabin is Ptah-Shepsés; his wife is further aft. The scenes are extremely realistic and full of minute details.

The door *p*, from hall A, leads into the secondary chambers C, D, E, F, which are of slight interest, owing to their ruined conditions. Apparently other secondary rooms, now destroyed, existed to the north.

West of the principal mastaba, opening into the *cul-de-sac*, is another tomb, also with the name of Ptah-Shepsés, perhaps a son. It is almost entirely destroyed, and its halls, α , β and γ , are without reliefs.

One further consequence of this discovery is to prove beyond a doubt that the pyramid adjoining this tomb is really that of Sahu-râ, as had been already conjectured.

ALEXANDRIA.—THE MUSEUM AND PLEA FOR EXCAVATIONS.—Though open barely a year, the museum is already well filled. Objects have been sent to it from Gizeh, and numerous presents—many of them of great value—have been made to it by the inhabitants of Alexandria. The curator, Dr. Botti, has already arranged the collection, labelled the objects contained in it, and published a Catalogue under the title of "Notice des Monuments exposés au Musée Greco-Romain d'Alexan-

dria." This Catalogue is divided into two parts, the first containing a general description of the objects exhibited, while the second is a *catalogue raisonné*, intended for scholars. The inscriptions published and annotated in the second part give the book the character and value of an independent archæological work. So also does the exhaustive list of the marks on the handles of Greek amphoræ discovered at Alexandria, of which there is a very large number in the museum. The list shows that most of the pottery used at Alexandria was imported from Rhodes, though there are a few specimens from Knidos, as well as some examples of native Alexandrine manufacture.

One of the most interesting portions of the collection is a series of sepulchral vases discovered in 1886, near the ancient Kanopic Gate, many of which found their way to New York. The vases are inscribed with *graffiti*, partly in capitals, partly in cursive, from which we learn that they contained the ashes of various Greek mercenaries in the service of Ptolemy IV. and his successors. Among them we find Cretans, Thracians, Acarnanians, and Arcadians. [Described in this JOURNAL, Vol. I, by Prof. A. C. Merriam.]

I may also mention a fragmentary Greek inscription found at Men-shiyeh, the ancient Ptolemais, in which reference is made to a "curator of Greek libraries" (*ἐπίτροπος βιβλιοθήκων ἑλληνικῶν*) in the reign of Hadrian, as well as certain statues from the Birket el Qarûn in the Fayyûm, which exhibit a curious combination of Greek art with the native art of the so-called Saitic school. One of them is dedicated to "the great God Soknopaios," explained by Dr. Krebs as the representative of the Egyptian Sobk-nob-aa, "Sebek lord of the island"; while another, which is dated in the month Tybi of the fourth year, was offered on behalf of Ergeus." Dr. Botti suggests that this Ergeus, of whom we have no other record, may have been a local ruler of the Fayyûm in the later Greek or earlier Roman period.

A study of the Catalogue brings one fact very clearly to light. The number of inscribed monuments found within the walls of Alexandria itself, and consequently of service in settling the ancient topography of the city, is very small indeed. That such monuments exist underground is indubitable, and excavation alone is needed to discover them. Some of the leading citizens have already started a fund for the purpose; the amount raised in this way, however, is wholly inadequate for clearing away the masses of *débris* which cover the remains of the ancient Alexandria. Unfortunately, the work must be undertaken now or never: the modern city is rapidly advancing eastward, and the district in which the principal buildings of ancient Alexandria once stood will soon be covered with streets of houses underneath

which it will be impossible to dig. The importance of such excavations may be gathered from the fact that we do not at present know the precise situation of the ancient Museum; even the site of the Tomb of Alexander is uncertain. If once the sites were ascertained, there would be a chance of discovering the relics of the libraries—at all events of that of the Museum—which were the chief glory of the Alexandria of the past. Could not the Egypt Exploration Fund find some way in which to unite its forces with those of the Archæological Society of Alexandria?—A. H. SAYCE, in *Academy*, Dec. 2.

CAIRO.—GHIZEH MUSEUM. — The latest important acquisition of the Ghizeh Museum is, from an artistic point of view, one of the most valuable objects yet discovered in the Nile Valley. It consists of an ebony door, and part of another, found by M. Naville at Dayr-el-Bahari. On one side are represented, in low relief, bands of Tats and symbolical knots, and beneath a dado of simple geometrical pattern. The reverse contains two registers of sculpture, in low relief, of Thothmes II. worshipping Ammon Ra, with a dado below. Remarkable historical interest pertains to these bas-reliefs, as the figure of Ammon Ra is erased throughout, and, from the reckless hacking, by the hands of a most violent iconoclast. The first, and probably correct, explanation of the mutilation which arises in the mind is that it was perpetrated by Khuenaten when he endeavored to suppress the worship of Ammon. The destruction could scarcely have been the work of early Arab invaders, since they would not have allowed the figure of the king to remain, and it is improbable that the first Christians would have wreaked their vengeance on the god alone, leaving pagan symbols to remain. Besides the above subjects there are bands of hieroglyphic inscriptions, bearing the cartouche of Thothmes II.

Regarded from a technical point of view, the execution is a marvel of wood-carving, and the exquisite rendering of the low relief is a triumph that perhaps only a sculptor can adequately appreciate. One naturally recalls the more celebrated examples of doors on which the skill of the artist has been lavished: in metal, the Assyrian gates in the British Museum, the doors of Monreale, of Amalfi, and other Byzantine work; in wood, the work of the Italian Renaissance, like the doors in the Palace at Urbino; and we think that for noble purity of style the general voice would award the palm to this eighteenth dynasty Egyptian wood-carving. The question arises, were the doors (they were folding) originally seen as ebony, or were they plated with metal, gold or silver? A careful examination of the surface shows it to be covered with plugged holes, that attach the panels to cross-bars

inside the framework, also ebony. But these, or some of them, might have been used to attach the metal to the surface. Again, one may be allowed to doubt whether the tops of the pegs would have been allowed to appear if the wood was to remain bare. Another weighty reason in favor of silver or gold will be found in the scheme of coloration of the temple of Deyr-el-Bahari, which still remains visible in parts. It is exceedingly bright and light in key, and the black ebony, although splendid in itself, and when seen in the chamber of a museum, would scarcely have harmonized with the general polychromatic effect. Dr. Brugsch supposes the doors belonged to a tabernacle of the temple; the height of one is about six feet by four feet, the other is only represented by a panel.—*Athenæum*, March 10, 1894.

KOPTOS.—PROF. FLINDERS PETRIE'S WORK.—Koptos as a city no longer exists; the present village of Koft is a small collection of mud-brick hovels lying immediately behind the raised bank of the Nile. Behind the village of Koft a raised causeway at right angles to the river leads, at a distance of half a mile, to the ruins of Koptos, such of them as remain, for the ancient city was probably larger than the area contained within the present Roman walls, twenty feet thick, of unbaked brick. The plan of operations is by trenches to discover the walls of the building, in the present case a temple, then to open a trench along the whole length of the wall down to the original pavement, and then below to former pavements. If statues, *stelæ*, or other objects are found they are hoisted out and the trench filled up with the earth of a parallel one dug in advance. Thus the whole surface is explored and covered over again to prevent the destruction of what is not removed. Prof. Petrie began operations on the 9th of December last, and soon discovered the site of the temple on the southeastern portion of the enclosure. The temple and pylons appear to cover a large space of ground, and stand within a temenos of corresponding proportions. Among the statues already unearthed are a colossal red granite triad of Ramses II. between two goddesses, a black granite kneeling figure, and the legs of a colossal statue in white limestone. The last is probably very early work, and bears cut into the right thigh representations of animals, as an elephant, hyena, fishes, &c., similar to ancient rock carving. A red granite *stèle* bears the date of the twenty-ninth year of Ramses III.; another is inscribed with the name of a daughter of Ramses VI. There are, also, a colossal head of Caracalla in red granite, Greek and Latin inscribed stones, a Latin dedication of a bridge, another bearing the name of the little-known Emperor Quietus, and a table of the tolls paid on goods and on individuals entering Koptos: among small objects a portion of a figure on an inlaid

tile similar to those found at Tel-el-Yahoudi, and now in the British Museum. A figure of a prisoner of the same style in the Ghizeh Museum was found, half at Koptos by M. Bouriant, and the other half purchased of a dealer.—*Athenæum*, Feb. 3. [A description of the extraordinary prehistoric and Early Empire antiquities afterwards found will appear in our next issue.]

DASHOUR (near Sakkarah).—M. de Morgan had been for some time planning excavations at the brick pyramid of Dashour, which had never yet been entered by excavators. The interest was all the greater in that the pyramid belongs to the time of Usertesen II, of the twelfth dynasty. A letter written by M. de Morgan, on March 1, announces his success in finding the entrance to the pyramid, and the wealth of sepulchral chambers that lie beneath the pyramid.

“Arrivé a Dahchour depuis quinze jours environ, j’ai attaqué la fameuse pyramide de briques, qui jusqu’ici avait résisté à toutes les fouilles. J’ai du surveiller de très près ces travaux et bien m’en a pris, car hier, 28 février, je suis entré dans le sanctuaire des morts. Déjà quatorze chambres funéraires et quatorze sarcophages sont visibles, mais un éboulement coupe la galerie principale. Il faut que je le passe avant de voir les autres chambres qui probablement seront très-nombreuses. Le tombeau du roi n’est pas dans la partie explorée hier; il est plus loin, mais j’ai la certitude de le rencontrer puisque je suis dans la place. Comme vous le savez, les pyramides ordinaires renferment un seul sarcophage et au plus deux chambres, construites dans l’épaisseur du monument. La pyramide de briques au contraire est massive et ne renferme rien. Les tombeaux sont creusés dans le rocher au dessous, et c’est par un puit que j’y suis descendu, mais là n’est pas la seule différence. L’intérieur est une véritable nécropole renfermant les tombeaux de toute la famille royale. Ces tombeaux donnent tous sur une galerie dont la partie déjà découverte est dirigée d’est en ouest.” Among the treasures in one of the royal chambers, is a pectoral in massive gold, 44 mm. high and 55 mm. long, and weighing 37½ grammes. In the centre of the pectoral is the cartouche of Usertesen II; on either side are hawks, wearing the crown of Upper and Lower Egypt, respectively. The signs of the cartouche are said to be composed of carnelian, lapis-lazuli, and turquoise, let into the gold. The reverse bears similar decoration, except that the ornamentation is incised.—*Athenæum*, March 24.

The gallery was found 27 ft. below the surface and was 230 ft. long. The sarcophagi are those of high functionaries and of a queen—all of the XII dynasty.

The Cairo correspondent of the *Times*, under date of March 11, says: “The excavations by M. de Morgan at the brick pyramid of Dashour

have yielded a large find of jewelry and gold ornaments bearing cartouches of Kings Usertesen II. and III. and Amenemhat III. Brugsch Bey, who is now arranging them in the Ghizeh Museum, considers that they far surpass in beauty and exquisite workmanship anything previously found in Egypt. The kings' tombs have not yet been found, and the broken condition of the sarcophagi indicates that the place had been rifled.—*Athenæum* and *Academy*, March 10. [A summary of the full description of these epoch-making discoveries in the *Gazette des Beaux Arts* will appear in our next issue.]

DEYR EL-BAHARI.—Mr. Hogarth writes: The labors of the first season and of the three weeks which have elapsed since work was recommenced in the second have produced an astonishing change in the appearance of the temple. It is literally being cut out of the mountain. When the vast mounds upon the middle terrace have been cleared away—a labor which cannot proceed very fast—the brilliantly-white colonnade round its northwestern end will become a landmark visible for miles. The clearance of this part of the temple will have a double interest: firstly, architectural, for Mariette's plan has been found to bear very little relation to fact, and the present appearance of the walls promises unusual features of construction; secondly, artistic, for we have found that a wall of unknown painted reliefs exists below the accumulated rubbish. These will be laid bare during the next fortnight; but the main mass of the mounds will hardly disappear this season. Already upon the upper terrace are piled more than 300 sculptured blocks, taken by the Copts from all parts of the Temple to build their convent walls. In the mounds of the middle terrace we shall recover nearly as many more, of which some show already. When all is cleared, and the possibilities of further discovery exhausted, these blocks will be sorted, and, if possible, built up again in their original places. This work, which will be supervised by Mr. J. Newberry, the architect attached to the expedition, will be of the first importance both on artistic and historical grounds; for it will result in the reconstruction of several scenes hardly inferior, either in interest or workmanship, to the famous Punt reliefs. For example, much has been recovered of the decoration of the third or lowest terrace, showing that there was represented another nautical scene—the transportation of two obelisks from Elephantine, at the bidding of the Queen. Either in the mounds, or by the demolition of the Coptic walls left standing on the upper terrace, it is hoped that the rest of this scene may be found. Every effort is being made to preserve all evidence as to the subsequent history of the temple, and to find the small objects of antiquity scattered among the *débris*. So far, the main

finds of the latter class have been beads, scarabs, and figurines, made of the famous blue-gazed ware. Good Demotic and Coptic *ostraka* are frequent, and there is much refuse from rifled mummy pits of the xxiii Dynasty. Some coffins and mummies have been found lying loose among the upper layers of *débris*: one fine case belonged to Namen-Menkhet-amen, a relative of Osorkhon II and Takelothis; another contains a very finely rolled mummy, for whose reception it was not originally intended; a third is early Coptic, and shows on the front of the outer cloth representations of wine and corn in the hands, while below is the sacred boat of Osiris, and over the heart a *swastika*.

The uppermost layer of the mounds consists entirely of the *débris* of previous excavators. Below this lies a layer from three to six feet deep of Coptic rubbish, left by the monks of the convent. Here are found *ostraka* and large quantities of broken blue glaze ware. Immediately below, in the only place on the middle terrace where we have sounded to the bottom, we have found the original pavement. Only, therefore, if we come upon untouched mummy-pits below this pavement, can we hope for any considerable find of small antiquities; for, so far as we have yet seen, there is no *débris* older than Coptic.

While the upper stratum of the mounds is being cut away, progress can be made in the copying of the inscriptions, a large number of which, having been pretty thoroughly erased, present great difficulties. The reconstruction of the Great Altar is to be begun as soon as the masons now at work on the house which is being built for the excavators are free. When the whole site has been cleared, the very costly and difficult work of reconstruction must be begun. That of the western-most wall will present peculiar difficulties, but, from the point of view of artistic effect, will best repay labor and cost. If the stone-slide of the cliff can be banked up, and the present Coptic constructions demolished, a large number of sculptured blocks belonging to other parts of the temple will be recovered, and the niches restored to their former beauty. The immense task of cutting away the mounds on the middle terrace will take two seasons at least, and the more shallow accumulation on the lowest terrace will still remain. No excavation of the same magnitude is being conducted at present in Egypt; and it is satisfactory that, where so much labor and money must be expended, the monument to be laid bare should be of such exceptional interest. Architecturally, Hatsu's Temple has no parallel: in the quality and preservation of its painted reliefs, it vies with any of the best known tombs; it is placed in a grander situation than any other building in Egypt.—*Academy*, Feb. 17.

CLOSE OF THE EXCAVATIONS.—Mr. Hogarth writes from Luxor, on March 16, that the excavations were closed the day before. The large mounds on the central terrace were not entirely cleared away, but their height everywhere reduced by twenty feet, and, on the W. and N. sides of the terrace, cut away to the level of the pavement and rock. Some hundreds of demotic and Coptic ostraka were found, mostly letters and legal documents, although some appear to form part of a library catalogue.

Colonnade.—On the northern side of the terrace we have laid open in its entirety a fine colonnade, formerly buried under fallen mountain *débris*; . . it has fifteen sixteen-sided columns, each fourteen feet eight inches high to the top of the abaci. A sandstone architrave rests only on the eight westernmost, and it appears certain that the eastern part of the structure was never finished. A wall of brilliantly white limestone is built against the mountain behind, and four vaulted chapels, uninscribed and perhaps unfinished, open out of it. Between and inside the columns exist at present a number of mud-brick chambers, which, when excavated, yielded Ramesside pottery and fragments of hieratic papyri, besides scarabs, beads, amulets and bits of bronze. These chambers are . . possibly dwellings of workmen of Rameses II, engaged on a restoration of the temple, and never destroyed because the completion of this colonnade was not carried through.

Hypostyle Hall.—We have cleared also the hypostyle hall at the western end, which was entered by Mariette, but left full of rubbish. It is one of the best-preserved remains of antiquity in Egypt. The star-spangled ceiling rests on twelve sixteen-sided columns over fifteen feet high: right and left are brightly painted funerary niches, and the main walls show scenes still brilliant in coloring, the Queen and Thothmes III offering to gods of the dead. A short staircase ascends at the back of the hall to the three-roomed chapel, on whose walls the Queen offers to Amen Ra and Anubis. As this hall is completely covered in, there is good hope that its paintings may be long preserved with their freshness little if at all impaired.

South of this hypostyle, and west of the main court of the central terrace, is a portico corresponding, in everything but excellence of workmanship, to the famous Punt portico on the south side of the central causeway. It is very much ruined; the square pillars are only complete at the broken end, and very few of the architrave blocks or roofing slates are in position. The number of these fallen masses of stone proved a great impediment to us, and we have been able this season only to clear the space between the western rank of

pillars and the wall. By so doing we have laid bare a very interesting series of representations concerning the preliminaries and circumstances of the birth of the Queen. Her mother, Ahmes, appears, conducted by several divinities to the presence of Amen, and the god appears to her in the guise of her husband, Thothmes I, as in those well-known scenes in the Luxor Temple, relating to the birth of Amenhotep III. Much restoration has been done on this wall by Rameses II; but the fine portraits of Ahmes herself have escaped his hand, and remain admirable examples of XVIII dynasty art, both in moulding and coloring. The inscriptions, though defaced, are fairly legible. Among the *débris*, which has lain since an early period on the court bounded by this portico, the hypostyle, and the colonnade, we have found most of our small objects of art in stone, ware or paste. Not much statuary has been discovered; the best piece is the lower half of a kneeling statue of Senmut, the architect of the temple; and a very fine portrait head in sycamore wood, on a part of a mummy case, is worthy of special mention. Amulets, figurines, rings and scarabs, inscribed and uninscribed, have been discovered in considerable numbers; and in addition to countless separate beads, some fine necklaces of blue ware, still strung, with pendants attached, were found in the lowest layer of deposit. Papyrus has been unearthed only in innumerable small fragments; the largest pieces have formed part of copies of the Book of the Dead.

The Temple at Deyr el Bahari, as has been often remarked, is not built on a general plan, comparable to that of any other Egyptian temple. Several parts of it, however, taken by themselves, recall the conventional arrangement of peristyle court, hypostyle and sanctuary. In fact, Deyr el-Bahari may be regarded as an aggregate of small temple-units. So on the central terrace we have the northern colonnade, answering to the usual peristyle, which leads to a hypostyle, out of which opens a sanctuary. As Thothmes I and II do not appear in any part of it, but only Hatasu and Thothmes III associated, we may assume that it was built after the death of Thothmes II and before the Queen-regent's rupture with her nephew, and was intended to be more particularly the funerary shrine of Hatasu herself and Thothmes III. It is apparent, however, that the original construction has been altered in this region, and we must wait until the whole terrace has been excavated before we can draw conclusions as to the architectural history of this part of the temple.

The reconstruction of the high altar of Harmachis on the upper terrace has been carried out successfully by Mr. John E. Newberry, nearly all the missing parts of the inscription having been found

among the *débris* close at hand. The funerary chapel of Thothmes I has been restored; and in digging out the space between the broken north wall of the altar chamber and the rock face we have found all the missing blocks belonging to a brilliantly-painted niche in the vestibule, and from them reconstructed it. Here (for once) Queen Hatsu appears in her male guise, unerased. The broken northern and western main walls have been built up again in part, to be completed if possible next season; and the crumbling cliff above has been shored up strongly with rough masonry. The northern end of the terrace is therefore nearly finished, and the main work of next season must be the reconstruction of the niches in the west wall of the main hall of the upper terrace. The major part of the existing wall about them is of Coptic construction, and must be pulled down, in order that numerous sculptures belonging to other walls in the temple may be recovered; but in order that this may be done and the safety of the niches assured, the sliding cliff on the west must be shored up not less strongly than on the north, at great expense of money, time, and labor.

The artists have completed their plates of the Altar Chamber, the Hall of Offerings, and the Chapel of Thothmes I; and these, together with drawings of the altar and the doors of the ebony shrine discovered last season, will constitute the first fascicule of the complete publication of Deyr el-Bahari, proposed by the committee of the Fund. It is hoped also that, when the excavation is complete, it will be possible to deduce results bearing generally on Egyptian art. The quantity of relief-work of admirable quality, the variety and freshness of coloring, and the comprehensive find of objects in blue ware ought to afford material for valuable chapters on plastic, pictorial, and ceramic art in the period of the XVIII dynasty.—D. G. HOGARTH in *Academy*, April 7.

EL-KAB.—With the permission of the Society of Antiquaries, it was proposed to hold in October a small exhibition at Burlington House of the photographs, photographic enlargements and drawings made by Mr. J. J. Tylor and Mr. Somers Clarke during the last winter season at El-Kab (Eileithyia) in Upper Egypt. In addition to the vast brick walls which still remain, there is a large number of rock-cut tombs, several of which are of great historic interest and of a good period. One of these, the tomb of Pacheri, has been selected especially for illustration. The photographs are all taken to scale and are enlarged to one-third of full size, *i. e.*, four inches to the foot, thus giving a more complete transcript of the delicate reliefs than has before been attempted. Lying a little way in the desert and behind El-Kab is the

small temple of Amenhotep III. Of this very perfect little building careful measured drawings have been made, supplemented by photographs—to scale—of the internal decorations.—*Athenæum*, Sept. 16.

KARNAK.—ARREST OF THE DECAY OF THE TEMPLE.—One of the objects for which the Society for the Preservation of the Monuments of Ancient Egypt is striving, is the arrest of the gradual decay of the temple of Karnak by means of Grand Bey's scheme for carrying off the inundation water of the Nile. Major R. H. Brown, of the Irrigation Department, undertook to act in the interests of the society and sent a detailed report in July, made after a careful survey. His object is to prevent the periodical wetting and drying of the bases of the walls and columns, which have been the cause of the gradual undermining which has gone on for centuries and has brought down many of the columns. If, as is to be believed, Major Brown's scheme is successful (and he seems confident that all will be ready for work during the inundation of 1894), the second main object for which the society was originally started will have been achieved, and the most magnificent group of ruins in the world, which M. Maspero is said to have stated could only be abandoned to their fate, will be saved from further decay. Major Brown's estimate of the cost was about £500 for the engine and £200 a year for keeping the engine at work. But a further sum of £600 would be required for making a permanent building for the engine and for an iron duct and masonry. Major Brown's report and estimate were adopted by the committee last August, and he is now making arrangements with M. de Morgan.—*London Times*, Feb. 24.

MATUGA (NEAR ABUSIR).—FORTRESS OF BA.—About three miles south of Abusir, Capt. Lyons has discovered a great fortress, defended on three sides by two walls of enormous thickness, the natural cliff serving for its protection on the eastern side. In the southwestern part of the enclosure Capt. Lyons has excavated a little temple or chapel. The inscriptions he found in it show that the place was named Ba, and that the fortress had been built by Useratesen III. On a large island opposite to it, in the middle of the Cataract, are the remains of another similar fortress.—Prof. SAYCE's letter in the *Academy*, Feb. 24.

PHILAE.—THREATENED DESTRUCTION OF THE TEMPLE.—Various plans have been lately proposed in solution of the problem, so very important for Egyptian prosperity, of the best way to store and utilize the surplus waters of the Nile. In view of one highly recommended plan we reprint the following letter:

Strathearn House, Crieff, N. B., Jan. 31, 1894.

I notice that the projects for the construction of reservoirs in the Nile have been completed, and that the Under Secretary for Public

Works in Egypt admits that the Aswân Shallâl or Cataract site is the best and most economical of those proposed. He recognizes the objection caused by the unavoidable inundation of the temple at Philæ, but suggests that the temple might be removed and built on the adjacent island.

I would earnestly call the attention of the archaeological world to this "unavoidable" act of vandalism. It is not enough to say that a committee of three engineers from England, France and Italy has been appointed to study the question: they were not sent in the interests of art, but to study the stability of the great dam. I do not wish for a moment to suggest that these three eminent hydraulic engineers are themselves vandals. Yet it is well known that engineers, when swayed by the interests of their calling, do not take into consideration the art side of the question; and it is not to them that we would naturally turn when we wish to preserve a world-famous monument, but to men of taste and archaeological knowledge. I hope that a protest will be lodged in the proper quarter against this act, which will cast a slur on the English in Egypt.

Though the expense would no doubt be greater, I am still of opinion that water held back up to the plinth of the temple of Philæ, supplemented by another dam higher up the river, would accomplish what is wanted in the way of supply. Two dams will be much safer than one, and the celebrated temple will be spared. JUSTIN C. ROSS (late Inspector-General of Irrigation, Egypt).—*Academy*, Feb. 3, 1894.

The above statement places the question fairly before the public. Considerable sentiment and indignation have been excited in England by this project of a dam at Philæ, involving the destruction of the temple.

On Feb. 22 the Executive Committee of the *Society for the Preservation of the Monuments of Ancient Egypt* passed a resolution which appeals to the Secretary of State for Foreign Affairs against the submersion of Philæ, and against the plan to take down the temples and rebuild them on another island. A similar resolution was passed at the same time by the *Society of Antiquaries*. On Feb. 14 the Foreign Office informed the Society that a special technical committee, composed of an English, a French and an Italian engineer, had been appointed by the Egyptian Government to consider the various projects which have been submitted for storing the surplus waters of the Nile.

Mr. Reginald Stuart Poole, Secretary of the *Egypt Exploration Fund*, writes a calm letter, in which he reviews the questions to be considered by the technical commission: 1. A dam on the Assuan cataract; 2. A dam at Kalabsha; 3. A dam at Silsilis; 4. The Wadi

Rayan project. The first three projects involve works with sluices across the Nile, and the last the utilization of a depression in the desert near the Fayum, avoiding all works across the river.

We refer to Mr. Cecil Torr's letter, in the *Times* of Feb. 27, for a good argument, that the cost of reconstructing the temples on another site fully equals the increased cost of the double dam—at Philæ and Assouan. Cf. also a letter by H. H. Statham in *Times*, Feb. 27: leader in *Times*, Feb. 24: account of meeting of Soc. for Preservation of Monuments of Anc. Egypt, in *Times*, Feb. 24.

The leader in the *Times* of Feb. 24 supports the attitude of Mr. Garstine, Under Secretary of State in the Department of Public Works in Egypt, and Mr. Willcocks, Director-General of Reservoirs, who drew up the report favoring the plan which involves the submersion of Philæ. Later communications are given in the *Times* of March 13.

QASR IBRIM.—Prof. Sayce spent a day and a half at Qasr Ibrim, and discovered a large stele, containing fifteen lines of hieroglyphs, on the western face of the hill immediately to the south of the old fortress. He copied the text with the help of a glass, and found that it was a record of the conquest of the Nubians and Negroes by Seti II, as well as the terms imposed upon them. The cartouches, however, which are twice repeated and very clear, are exceedingly puzzling; since while the first is that of Seti II, the second is, with a slight variation, that of the rival king Amonmeses. This fact gives a new complexion to an obscure portion of Egyptian history.—Prof. SAYCE's letter (*q. v.* for details) in the *Academy*, Feb. 24.

SAKKARAH.—EXCAVATIONS BY M. DE MORGAN.—We regret not to be able to give any account as yet of M. de Morgan's excavations and investigations at Sakkarah, but hope to supply one in our next issue.

In the northern part of the necropolis M. de Morgan has discovered a second crouching scribe, similar to the one in the Louvre. The professional movement and attitude are caught with great truthfulness: we have before us in every detail a real representation of a scribe of the earliest Egyptian period.

WADY-HALFA.—Col. Halkett Smith and Capt. Lyons have continued their work at Wadi Halfa. The two temples of Usertesen I and Thothmes III have been cleared of the sand in which they were buried, and have proved to be highly interesting. Immediately behind the temples Capt. Lyons has discovered a remarkable ditch of fortification cut through the rock, and once strengthened on either side by a wall. Behind the ditch is the necropolis of the ancient city, consisting of

rectangular tombs cut deep in the rock, with a sloping passage at the bottom of each of them, which leads into the sepulchral chamber. One of them was opened by Capt. Lyons, but proved to have been rifled centuries ago. For some interesting Greek and Karian graffiti and *proskynemata*, see the extracts given above from Prof. Sayce's letters.

NUBIA.

PROF. MAHAFFY'S NOTES FROM NUBIA.—Prof. Mahaffy joined Prof. Sayce near Philae, and has sent to the *Athenæum* correspondence on the journey between the first and second cataract. The number of scientific travelers who have reported upon Nubia is but small, Gau's inscriptions being the main authority for the Nubian collection in the 'C. I. G.' and Lepsius having given his main attention to hieroglyphics.

As regards Nubia, the chief points of historical interest are three: What amount of influence had the early Egyptian dynasties over this remote country? what did the Ptolemies effect in the way of civilizing it? what evidence is there for the existence of independent native princes? On all three points we have found considerable additional evidence. Taking the temples in their order from north to south, we find at DEBÔT that the inner naos was built by a native Nubian king, Atkheramon, while the pronaos and pylons in front of it (and therefore subsequent) were commenced by Euergetes II, so that the native prince must come into the disturbed period at the end of Ptolemy IV, and during the infancy of Ptolemy V. The Rosetta inscription speaks as if the fifth Ptolemy had recovered all his father's dominions; the constant recurrence of Euergetes II (and no earlier of the series) on Nubian temples seems to tell us that this was the king during whose long reign the southern provinces were recovered for Egypt. Roman emperors from Augustus onward have left ample records of their sway.

The few late and uninteresting votive inscriptions at GÂRTASS are all round a small shrine in the centre of the great sandstone quarries, from which the temples of Philae were chiefly built. At TEHFA we found a rifled necropolis.

The next place, KALAPSHÉ (Talmis of the Romans), has all the walls of the great pronaos covered with inscriptions. Mr. Sayce counted over eighty of them (fifty-six are given in the "Corpus"), and we succeeded, with the aid of a ladder, in copying a metrical one which has probably not yet been published. Most of them are painted on the stone with red paint, which comes out very clearly when touched with spirits of wine. The well-known inscription of

Silko, king of the Nubians and Blemmyes, we recopied for the sake of verifying the editions of it; the Meroitic (?) text close beside it was copied by Mr. Sayce. There did not seem to us any evidence in the inscription that Silko was a Christian.

High up above Kalapshé is the rock temple of *Bet-el-Wallî*, set up by Ramses II, and showing both the merits and the defects of his work; the picture of his conquests over the tribes of Ethiopia are, however, very interesting, and important for this southern history.

At DENDÛR, a temple containing cartouches of Roman emperors (misspelt "Autotrator" for *Autokrator* several times), we copied a Coptic inscription on the east post of the south door, which speaks of Theodorus as "Bishop of Philæ," a title disputed in the guide-books. He was the bishop who abolished heathenism at Philæ about 577 A. D.

At DAKKEH (Pselchis of the Romans) we found the inscriptions very much effaced by the weathering which blowing sand produces even more than rain; but many of the votive texts of Roman officers are still to be read. It is remarkable that while that of Apollonius calls him a *strategos*, one immediately beneath speaks of him as the afore-mentioned *Arabarches*, a word known in the late Republican days of Rome for native Syrian princes. Several of the devout call themselves generals, but we look in vain for the most distinguished of them, Petronius, though that name is scratched three times, apparently at random, in the temple of Gártass.

The next place of interest was the rock temple of *Gerf-Husên*, also a work of Ramses II, who seems to have built a large number of small imitations of the vast masterpiece at Abou Simbel.—*Athenæum*, Feb. 17, 1894.

Over against Dakkeh we went to visit the great brick fort of KOBÂN, which next to that at Semneh, above the second cataract, is the best specimen of the military architecture of the Pharaohs. The plan and dimensions of the fort were taken by Mr. Somers Clarke.

Dakkeh itself gives us good evidence as to the date of the first Ergamenes (Arkamen in hieroglyphs) who was native king of the country. The naos built by him represents him as receiving gifts from Nubian goddesses, whose figures and dress suggest plainly the figures and dress of the present Nubian women, and differ completely from those of the conventional Egyptian deities. He also states that the Pharaoh (Peraa) gives to him the regions of the south. What Pharaoh it was he does not state. But the facts that in his own titles he assumes those of Philopator (Ptolemy IV), and that this is also done by the Nubian king named in my last letter (Atkeramoun at Debôt), show that they must come shortly after, if not in the reign of, that king,

and not of Philadelphus, as Diodorus says. This was Mr. Sayce's very just inference. To me it seemed further probable that the absence of details concerning the Pharaoh, which is unusual in such texts, points to the earliest years of Ptolemy V. (Epiphanes), when this king, being an infant, may not yet have received his official titles. At all events the Nubian revolt, and the temporary cession of the country by the Ptolemies to the native dynasty—that of Ergamenes—are beyond all doubt, and so is the epoch of this cession, which must be placed about 200 B. C. The Egyptian style and the titles of these kings suggest that some at least of the literary classes in Egypt joined in the insurrection, and did work for the Ergamenids. Unfortunately there are no Ptolemaic inscriptions (except the remnant of a dedication to Ptolemy IX) in Greek now to be seen, all the votive offerings being either dated in the reign of Tiberius or later.

Our next stage was QURTI, where but small traces still remain of the temple of Tothmes III, which was restored in Roman times. But the site itself is a quondam island, and on a hill about the middle of this long island was a great mound almost consisting of Roman pottery, and pointing to the island Tachompsos of Herodotus, "the level country which the Nile flows round," twelve *schœni* (83 miles?) from Aswân.

At MAHARRAKAH (Hierosykaminon of the ancients), instead of the fifteen votive inscriptions which are to be seen in the "C. I. G.," there were not more than eleven still extant, and the temple bore evidences of being upset by an earthquake, which (like that which upset the temple of Olympia) struck it a blow from beneath the pavement, and sent nearly all the walls and pillars flying outwards. Five pillars are still standing, but the very strange plan of the building, drawn by Mr. Somers Clarke, showed that the pillars (six showing sideways and four front and back) were inside, not outside, the cella wall, in which no trace of door is now visible. The remains of a walled passage, leading from a smaller outside building into the southeast corner, suggested that here, at all events, was there access to the sanctuary. Such a plan has no precedent in either Egyptian or Greek architecture. On the smaller building the relief of the holy sycamore is still visible, and figures done in a barbarous mixture of Egyptian and late Roman style. On the centre of the wall of the peribolus (inside), and over against the only door of the naos, are remains in large capitals of a dedication in Greek of which we could only read *τωτου και των ευσεβου*
| *τατων γονεων και γαιου* | -Μικίου Αδελφ | ου.

This was the southernmost evidence we found of any dedication in Greek, and it was evidently rather Roman than Greek. Indeed,

nothing is clearer than the fact that the Ptolemies did not think it worth their while to civilize this country, or to adorn it with any temples to the south of the Dodekaschœnus (Tachompso), for of their predecessors the Pharaohs ample evidences remain. The XI, XII, XVIII and XIX dynasties are all still represented in temples and inscriptions throughout Southern Nubia; of the Ptolemies we could find no trace. Seeing then that we know of the expeditions of the second Ptolemy to Æthiopia for elephants, and of the marble throne set up by the third south of Massowa (inscription of Adule), it seems to follow that these kings used the Red Sea route, and struck into the country from Suakim and south of it. That they should have left no records on the rocks along the Nile, if they had held the country by that route, is almost improbable. I found, indeed, on one of the pillars of the beautiful temple built by Tothmes III opposite Wadi-Halfa, drilled in deeply and in letters four to five inches high, the following names: $\text{IIACIMENHC KYPHNAIOC } \beta \text{ IASON KYPHNAIOS A.}$ And on the next pillar AΔAMAΣ. But these solitary names, which seem to date from the IV century B. C. (C and Σ being used indifferently), are only evidence that Greek mercenaries, along with the Carians, who have left several inscriptions on the same building, held the place for some king, possibly for Darius, or even later.

The temple of DEBUAH, which we next visited, is one of those stupid memorials of Ramses II which only tell us of the king's greatness, and give us long processions of his sons and daughters coming to do him homage. The king's own name is writ very large over every part of the building. But the avenue of sphinxes which led up to it from the river, and most of the temple itself, are buried under the golden sand which is invading and destroying all the western side of the Nubian Nile.—J. P. MAHAFFY in *Athenæum*, Feb. 17 and March 17.

ABYSSINIA.

MR. BENT'S EPIGRAPHIC MONUMENTS.—We give the following abstract of a paper communicated by Prof. D. H. Müller to the Imp. Academy of Sciences at Vienna on Oct. 18, and republished in the *Babylonian and Oriental Record* (Jan., 1894).

Mr. Bent's journey in Abyssinia took place early in 1893. On Jan. 7 he started from Massauwa, but was kept back by the governor of the Italian colony for several weeks in consequence of the war between the two Abyssinian chiefs Ras Alula and Ras Mangashas, and so was unable to push on to Aksum. He remained for three weeks at Asmara, making several excursions, and leaving there Feb. 6, he arrived at Adowa on Feb. 13. After staying there three days he made

an excursion to Yeha, where he spent two days. Although hostilities had then recommenced, he pushed on to Aksum, remaining there from Feb. 21 till March 2, when he was obliged to fly, and was in great danger until rescued by Italian troops. On his way back he passed Digsä and Halai, revisiting the high mountain chain of Kolehaito, where the ancient Koloë was situated. He also passed through Adulis, reaching Massauwa March 26.

Prof. Müller received in May squeezes of the inscriptions found by Mr. Bent at Yeha and Aksum. The fragments from Yeha, partly already known from copies of Salt and others, show the oldest forms of the Sabæan alphabet, and belong undoubtedly to the first period of Sabæan history, the so-called period of Mukrab. The ruins are of Sabæan origin, and the colonization of Abyssinia by Sabæans took place about the year 1000 B. C., judging from buildings and inscriptions.

The monuments of Aksum belong to much later periods, and illustrate the change from the Sabæan to the Ethiopic language in every part of its development. Of the bilingual inscription of Aksum, the Greek text was copied by Salt and published in C. I. G.: but the squeezes give a number of important and instructive readings. This Greek text makes it possible to read and translate a great part of the old Ethiopic text which is written from r. to l. in a more recent Sabæan alphabet, and which shows archaic forms and constructions that were lost in more recent Ethiopic. A royal inscription of 29 lines was discovered by Mr. Bent at Ela-Amida, written in Sabæan characters from r. to l. and in old Ethiopic. It is of special importance because it seems to belong to the father of the king mentioned in the Gheez inscriptions of Aksum.

The two so-called Ruppell inscriptions of Aksum, which are the oldest monuments of the Gheez language in the new left to right vowel-characters, were known only by rather poor copies and were thus an uncertain guide. Being about 800 years older than the oldest Ethiopic manuscripts, their importance is evident. Mr. Bent's squeezes enable us to reproduce the authentic text except in a few places. [There are some passages in the so-called translation from the German of Prof. Müller's article, printed in the *Bab. and Or. Record*, that are almost unintelligible. So inexcusably barbarous a translation has rarely been imposed upon a suffering public—the squeeze of an inscription is called a "proof-sheet"; appendix becomes "appendit." We learn that "Mr. Sigmund Stiassny, a medical student, who possesses great abilities as an amateur photographer, took over before the beginning of the autumn vacations the long and laborious task to take the photos of the greater part of the "proof-sheets."]

MR. BENT'S EXPLORATIONS.—In the *Academy* of January 13 there is a review of Mr. Bent's book, *The Sacred City of the Ethiopians, i. e., Aksum*, the object of Mr. and Mrs. Bent's pilgrimage in the winter of 1892-93.

Not the least interesting portion of Mr. Bent's book is that which deals with Abyssinian Christianity. The churches, ecclesiastical ornaments and ceremonies of the Abyssinian faith carry us back to an early period in the history of the Christian religion. The Abyssinian monks on the barren heights of their almost inaccessible mountains present us with a living picture of the ancient hermits of the Thebaid. At Yeha he found numerous monuments of the past in the shape of upright monoliths, splendid temples of hewn and drafted stone, and the traces of terraces for cultivation on the neighboring hills. He makes it clear that Yeha must represent the city of Ave mentioned by Nonnosus, the ambassador of Justinian; and the conclusion is confirmed by a fragment of an inscription found on the spot, in which Prof. D. H. Müller reads the words "the temple of Awa."

The monuments of Aksum belong to a later date, and testify to the influence of the Ptolemies in the Abyssinian highlands. Mr. Bent's photographs and squeezes of them enable us for the first time to determine their true character. Among the most interesting of them are the obelisks, a large number of which still exist. Some of these are merely rude monoliths, but others belong to a later period of highly-developed art. They are carved into the semblance of lofty towers or castles, with a door at the foot and a series of stories above, each of which is provided with windows. The head of the obelisk is rounded and otherwise ornamented, and nail-prints show that it was once covered with a plate of metal. In one case a sort of Greek temple is represented resting on a column, the capital of which is adorned with volutes. At the foot of each obelisk stood an altar, plainly indicating the purpose for which the obelisk was erected.

Besides the obelisks and altars, Mr. Bent found the remains of a temple as well as the pedestals of statues—called "thrones" in the texts—on some of which inscriptions have been cut. Outside the town is a great reservoir of early construction, which is still used; a lioness, carved with considerable spirit on a rock; and a collection of ancient tombs, which are entered by sloping passages.

One of the squeezes gives us what remains of the Sabæan text of the inscription of King Aizan, which had not been copied before. The text is bilingual, in Greek and Ethiopic. Aizan was King of Ethiopia in the time of the Roman Emperor Constantius. Another of Mr. Bent's inscriptions which is new is in twenty-nine lines of Sabæan

characters, and records the victories of Ela-'Amida "king of Aksum and Homer and Raydan and Saba and Salhin and Tiya and Bega and Kas." It was the son of this king who erected the inscription discovered by Salt in 1808, and subsequently copied by Rüppell and d'Abbadie.

EAST AFRICA.

HISTORICAL RESULTS OF MR. BENT'S JOURNEYS. — Prof. Dillmann read a paper on Jan 11, before the Berlin Academy of Sciences, on the historic results of Theodore Bent's travels in East Africa. He shows that a German, Karl Mauch, preceded Mr. Bent in 1871 in his discovery of Zimbabwe, some 40 miles inland from the Portuguese station Sofala, between the Zambesi and the Sabi. Although there exist many other ruins of similar character in this region, along the upper Sabi, the northern affluents of the Limpopo and the southern affluents of the Zambesi, Zimbabwe appears to have been the largest and most important. For these facts and for a summary of Mr. Bent's book, see under *Book Reviews*, on p. 224.

Dillmann gives a careful description of the ruins, mainly summarized from Mr. Bent. But his main object is to inquire to what race its inhabitants belonged. They were a foreign race, established, however, in the land for generations, perhaps centuries, to judge from the character of the remains of their civilization. Their religion was similar to that of the early Semites—nature worship, cult of the sun, of stones, phallic worship. They were acquainted with astronomy and practised art and industry. Bent leans to the opinion that they were Arabs of the Sabæo-Himyaritic period. All Greek and Roman geographical authorities agree in stating that the South Arabs had the monopoly of the trade along the shores of the Indian Ocean, and from their emporiums supplied the northern peoples with all the products of this region. The *Periplus maris erythræi*, of the time of Pliny, seems to prove (with Schlichter¹ and against Glaser²) that the journeyings of the Greeks did not get beyond Azania—the present Somali coast. Had the trade with Mashonaland been then in activity, it is hardly possible that such a fact could have remained concealed from merchants and geographers. Nor is it possible to suppose that this region was opened up after the second century A. D. We must therefore agree with Schlichter in believing the settlement to date back even of the last centuries B. C.

The choice lies between Phœnicians and Sabæans, and there are many arguments in favor of the Sabæans. In the first place, the land

¹ In *Petermann's Mittheilungen*, 1892, p. 284.

² *Skizze und Geschichte der Geographie Arabiens*, II, p. 206.

of the Sabæans is always spoken of in antiquity as the source of gold, and Zimbabwe, of course, was settled on account of its gold mines. Then the construction in regular cut stones, without mortar, the curved and oval walls, are parallel to many examples in Saba. The only difficulty is that no inscriptions have thus far been found, whereas the Sabæans usually employed them quite profusely. The religious tenets of Zimbabwe also agree entirely with the Sabæan. It is true that there are several parallels to the Phœnicians that can be pointed out, but they are not as complete or as convincing as the Sabæan parallels.

Prof. Dillmann also reviewed Mr. Bent's Ethiopian journey, showing its importance for the earliest history of the Kingdom of Axum (Bent, *The Sacred City of the Ethiopians*) in the wealth of material which he has made available to the scientific world. Excavations were impossible on account of local fanaticism. One of the inscriptions found at Yaha is placed by Müller as early as the seventh or eighth century B. C.; and if this is a correct opinion, the entrance of the Sabæans into Abyssinia would be far earlier than had been supposed, and their colonization of North Africa would then agree in date with the theory of their advance into South Africa in the reign of Zimbabwe. D. is not disposed to accept Bent's identification of Yaha with the ancient *Adá*, *Añ*, *Ava*, as the text of Nonnosus would appear to place *Ava* in a different location. At all events, Yaha must have been a very important centre of Sabæan colonization in the pre-Axumitic period.—*Sitzungsber. Akad. Wissensch. zu Berlin*, Jan. 11, 1894.

Discovery of Roman Coins.—It is an interesting fact that some local traders report the discovery by a Mashona native of eight coins in a fair state of preservation in the neighborhood of the ruins of Zimbabwe. They are undoubtedly Roman; four are inscribed *CONSTANTINVS CAES.*, two others bear on the obverse the head of a woman and the inscription *HELENA AVGVSTA*, and one represents the wolf suckling Romulus and Remus.—*London Standard*, May 8.

ALGERIA AND TUNISIA

BOU-FISHA.—**PEGASUS AND THE NYMPHS.**—A terracotta tile found in the ruins of a Christian chapel at Bou-Fisha reproduces the rare subject of the nymphs attending to Pegasus. One is giving him to drink, a second, crouching, cleans his feet, while a third grooms his neck. This composition is the exact parallel to that in the tomb of the Nasoni on the Via Flaminia. The site of the scene is the spring Hippokrene, created by a blow of the foot of Pegasus, and this is indicated in the tile by a female figure pouring water from an urn above her

head into the vase from which Pegasus drinks.—*Bull. Soc. des Antiquaires*, 1893, p. 80.

CARTHAGE.—THE HARBOURS.—South of the citadel of Carthage are two large marshes, in the lowland between the hill and the shore. The northern marsh has about the shape of a crescent; the southern marsh is oblong and traversed by a road resting on a dyke. According to all authorities in Carthaginian topography these marshes occupy the site of the ancient ports; that to the north, originally circular, with a circular island in its centre, being the military port, while that to the south, primitively rectangular, was the merchant port. One canal put the two in communication, and a second connected the merchant port with the sea.

Mr. Cecil Torr has advanced a different theory which he has expressed in articles entitled: "The Harbours of Carthage," in the *Classical Review*, 1891, p. 280, sqq; and 1893, p. 374 sqq. Compare also "Die Häfen von Karthago," by R. Oehler, in the *Jahrbücher für Klassische Philologie* (1893, pp. 321–32). The latest presentation of Mr. Torr's views is found in the *Revue Archéologique* for Jan.–Feb. 1894, pp. 34–47.

Mr. Torr's first step is to show that whereas Appian, in his detailed description of the inner port states that it contained docks to receive 220 vessels and whereas the almost contemporary Athenian docks show that a front length of about 1,433 metres would be required for these vessels, and whereas only about 1,075 metres frontage are afforded by the northern marsh, it follows that this marsh could not have been used as the inner port of Carthage.

The outer port of Carthage was called Kothon; this is to be inferred from passages in Festus, Servius (*ad Virg.*), Diodorus, etc. Festus says this name was given to artificial ports made in the sea. Apparently only one other port received this name—that of Hadrumetum. As was to be expected this port of H. was made by jetties. It is, therefore, certain that the outer port of Carthage was an artificial port made by jetties. This demolishes entirely the received theory of the present marshes. It appears certain that the circular inner port was flanked on either side by a canal by which direct communication was maintained between the city and the outer port. It is not proven whether this inner port was artificially formed by jetties within the outer port, or situated inland in an excavation, for there are indications that the inhabitants excavated ports at an early date.

Finally Mr. Torr attempts to locate the port exactly. Appian says that the Kothon was square at one end and rounding at the other. Mr. Torr places the square termination at the south, at the further

end of the promotory opposite the hillock, while he believes that the northern end continued the curved line of the hills where they touch the shore. The pretended port of Utica—a rectangular excavation with an island on which are ruins, is shown to be, like one near Carthage, not a port but baths.

Since the above note was put in type we find a further criticism of Mr. Torr by Otto Meltzer in the *Jahrbücher* for 1894 (pp. 49-68 and 119-36), who upholds the orthodox view, and to whom he replies in the *Classical Review*, June, 1894 (pp. 271-76). For a restatement of the various theories we refer to these articles, as we cannot spare the space to summarize them in the JOURNAL. Mr. Torr's position, in a few words, is this: "My theory is that the ponds have nothing whatever to do with the harbours. I am of opinion that the outer harbour was formed by piers in the sea; and also of opinion that the inner harbour was nearly surrounded by the outer harbour, but that its position is otherwise unknown."

HADJEB-EL-AÏOUN (NEAR KAIRWÂN.)—In an article published in the *Rev. Arch.* in 1888, M. de la Blanchère illustrated a series of terracotta tiles, decorated with figures or ornaments, found in Tunisia. The majority bear rosettes, deer, lions, peacocks, oxen; others have Christian or Pagan subjects such as Pegasus cared for by the Nymphs, and the sacrifice of Abraham; while on one is an inscription between two crosses + SCT MARIA AIVBA NOS + (*Cf. JOURNAL*, IV, 473, 544).

M. Hanezo has lately discovered at Hadjeb-el-Aïoun, 60 kilom. south-west of Kairwân, in the ruins of a basilica, another similar series of tiles with Christian subjects. They have been communicated by MM. Cagnat and Gauckler to M. Le Blant, who illustrates them in a paper in the *Revue Arch.* 1893, II, pp. 273-80. The subjects are: (1) Adam and Eve, with nimbus, standing on either side of the tree around which the serpent is twined: (2) Christ standing between two apostles, all being nimbed, and multiplying the loaves and fishes: (3) S. Peter, with nimbus, receiving a key from the hands of Christ: (4) the sacrifice of Isaac, who kneels in front of the altar while Abraham raises a sword in his right hand: (5) Christ and the Samaritan woman at the well.

Each of the above subjects, as well as a number of figures of animals in the same series, are framed by a colonnette on each side. At the time of discovery several of the tiles still adhered to the walls of the basilica of which they formed the dado. To judge from the form of the letters in the inscription already published the tiles date from the second half of the sixth century.

The hall in which the tiles were found is paved with a mosaic representing doves within scroll-work with a border at each end containing three fish.

LOUDNA. (TUNISIA).—A ROMAN VILLA.—A letter from Tunis to the *Revue Archéologique* (1894, I, 115) informs us that the excavation of the ruins of a Roman villa at Oudna, under the direction of the *Service Beylical des Antiquités*, is being carried on successfully. After completing the uncovering of the first building whose eight chambers were paved with mosaics, M. Gauckler is bringing to light a second structure situated opposite the first and connected with it by two wings of less importance, surrounding a vast peristyle. The first hall, starting from the east end has a mosaic of glass cubes on a white marble ground. The scene represents a series of wild and domestic animals, among which are a war elephant, a superb stallion, a leopard with shimmering fur, artistically rendered by a mingling of cubes of brilliant colors in with the dark tones of the fur. Broad scrolls of acanthus ending in lion heads separate the groups. To the N. of the hall is a wide drain leading to a vaulted reservoir composed of two basins of unequal dimensions separated by a narrow neck, the larger basin being in the shape of a gigantic bottle placed on its side.

South of this hall is a second room connected with it by three openings—a narrow door at each end and a wide opening in the centre to be closed by a *velum*. On the sill is a hunting scene; to the right a hare and a fox are in full flight closely pursued by two *levriers d'Afrique* or *slougues* whose names are given in mosaic inscriptions as *EDERATVS* and *MYSTELA*. Two unarmed horsemen follow, mounted on Numidian stallions in full gallop, urging on their steeds with voice and gesture, and flourishing one a whip and the other a *houssine*. Behind them, leashes in hand, is the slave who has let loose the dogs. The grouping is fine, the action lively and the preservation perfect. Through this door we reach an atrium ten metres square whose ceiling was sustained by two colonnades, the lower part of which is still *in situ*. The columns are of calcareous stone entirely covered with stucco, including both capital and base. The border of the mosaic pavement is geometric, composed of stars and rosettes. Then comes the framework of the central composition measuring five by six metres. This framework consists of a garland of varied flowers and fruit analogous to that of the great mosaic at Sousse but superior to it in execution. The decorative arrangement recalls that of the great mosaic of Kourba (*Curubis*) uncovered last year and transported to the Bardo Museum. At each of the four corners is a large vase decorated on their body by a procession of female figures (Muses?) hold-

ing each other by the hand. From each vase proceed two vines laden with leaves and fruit whose branches form a green trellis among which flutter birds and erotes. There are 28 of the genii with transparent many-colored wings and plump, rosy bodies, running from branch to branch picking the grapes. The drawing, generally considered, is good, but there is no true perspective and there is evident disproportion between the figures. In decorative and archæological value this mosaic ranks as the best found in Tunisia. The hall where it was found corresponds, in the second building, with that in the first building in which was found the mosaic of the Rape of Europa.

ASIA.

IS THE SOURCE OF EUROPEAN CIVILIZATION ORIENTAL?—Two late numbers of *L'Anthropologie* contain articles by M. Salomon Reinach, entitled "Le Mirage Oriental." They represent the furthest swing of the pendulum, in the reaction which has been making itself felt during the last dozen years, against the extreme view which would find the sources of all civilization in the East. After expressing his agreement with Pictet's theory of a European origin for the Aryan group of languages, with Halévy's theory of an Aramæan origin for Indian writing, and with Darmesteter's theory of a late date for the Avesta, M. Reinach proceeds to his main argument, which is to refute the opinions of Bertrand and De Mortillet, that the prehistoric civilizations of Western Europe are due to Oriental influence. Reversing the common view, he even goes so far as to maintain that wherever and whenever bronze, and therefore tin is found, it must have come from the Cassiterides or Celtic Islands of the West.

In his second paper he deals with the Aegean civilization: that is to say, with the discoveries of Schliemann and Prof. Flinders Petrie, in connexion with all the other archæological evidence. His main thesis is that the culture represented is not due to Egypt or Chaldaea, though it may show contact with both; but that it is essentially Western and European. He admits that there must have been in the remote past periods of progress, affected by external stimulus, and also periods of stagnation and even of decadence. But, on the whole, he maintains that the greater part of Europe in prehistoric times shared a common civilization, which was not derived from Egypt or from Phœnicia. The original source of it he would place in Central or perhaps in Northern Europe, whence it radiated south in all directions—to Spain, Italy and Sicily, Greece and Asia Minor. He goes so far as to fit into his theory such intractable material as the Hittites, the Etruscans, and the Pelasgi. Apart from its boldness, a special feature

of his theory is the allowance it makes for the flux and reflux of hostile influences, and for successive waves of migration. Following Prof. Petrie, he would date the first contact of Europe with Greece as early as the twenty-eighth century B. C.—*Academy*, February 24 and March 17.

ARABIA.

DR. GLASER'S SECOND EXPEDITION. —Several years ago the German traveler, Eduard Glaser, discovered a large number of Semitic inscriptions in Southern Arabia, and, when these were deciphered, it was discovered that they brought intelligence of the existence of Minaean and Sabæan kingdoms and of a knowledge of letters in those districts many centuries before Christ. In the interpretation Glaser was materially assisted by Dr. Hommel, of Munich, and Dr. Müller, of Vienna. In addition it was also learned to a certainty that the representatives of the Semitic peoples in Africa, the Abyssinians, were originally established in Southern Arabia. The important results of these discoveries have been repeatedly announced in this JOURNAL.

Dr. Glaser has recently returned from a second expedition and has brought with him copies of some eight hundred inscriptions and two hundred and fifty Arabic manuscripts, as also specimens of Arabian antiquities of various kinds. He has been helped in his researches by the Bedouins, whom he had taught to make squeezes of inscriptions. These are able to penetrate regions practically inaccessible to the white traveler, and bring materials for research he could otherwise not get. The new finds have not yet been interpreted.—N. Y. *Independent*, May 24.

BABYLONIA.

TELLOH.—We have not seen any full account of the more recent excavations by M. de Sarzec at Telloh, which he has been carrying on steadily and with good results for the last two years or more. M. Heuzey has, however, communicated to the *Acad. des Inscriptions* some notes on objects found in the course of these excavations.

Especially interesting is a colossal lance-head of copper or bronze, at the base of which is a royal inscription not yet deciphered. M. Heuzey believes this to be one of the sacred arms preserved among other objects of worship in the temples, and which is one of the attributes of Izdubar or Gilgames, the Babylonian Herakles. [It is probably one of the originals that are copied in the religious scenes cut in the Babylonian cylinders, where the sacred lance is stuck upright in the ground or on an altar, as a divine emblem and object of worship.—Ed.]

A number of objects are mentioned by M. Heuzey as being already in the museum at Constantinople, where he has studied them. Foremost are some magical statuettes of the time of the early King Ur-Nina, in the form of female busts ending in a long point. These statuettes, made of pure copper, were stuck directly into the ground and supported on their heads stone votive tablets. They were evidently for the purpose of warding off the spirits of the under world. M. de Sarzec also discovered numerous stone lion-heads, with a hole for a peg, which served probably as the ends of the arms of a royal throne. One of these heads, in the Louvre, bears the name of King Ur-Nina; another at Constantinople contains the name of the land of Magan, the undetermined country whence the Babylonians got the stone for their statues.—*Revue Arch.*, 1894, I, 108, 109.

At a later meeting, in April, M. Heuzey gave a general account of the manner in which M. de Sarzec, now consul-general, has been exploring the earliest archaeological strata. Among his most recent discoveries are two more fragments of the famous early bas-relief called the *Stele of the Vultures*; a number of inscriptions; a series of bronzes or even works in copper, among which are to be noted two bull-heads, with eyes incrustated with mother-of-pearl and lapis lazuli, a technical process sometimes found in the earliest monuments.—*Chron. des Arts*, No. 16, 1894.

NIPPUR=NIFFER.—Notwithstanding every effort, the editors of the JOURNAL find it usually more difficult to obtain information regarding archaeological work undertaken by Americans than of that carried on by foreigners. We offer this to our readers as an explanation of the lack of prompt and first-hand information concerning the discoveries at Niffer. The earlier work there under Dr. Peters has been described in previous issues.

At the recent annual meeting of the American Oriental Society, on March 29-31, Mr. Talcott Williams made a very interesting statement, summarized in the N. Y. *Independent* of April 12, regarding the digging now going on in the ruins of Niffer. Mr. Haynes has since last spring been continuing the work begun there previously by Dr. Peters, and in the first ten months has taken out from the débris 8,000 inscribed clay tablets and fragments, besides other objects. More remarkable is the fact that Mr. Haynes has dug below the levels of the débris from the time of Sargon I (3800 B. C.), and has found inscriptions in this deeper stratum. It seems probable, therefore, that we are now to have revelations of a still earlier period of Babylonian culture. The results of the work of Dr. Peters were important, and the continuation of the work will probably prove vastly more so. To be noted

are the cordial relations of the expedition with the Turkish Government, and the generosity of the Turks in allowing many of the objects found to come to this country. At the meeting of the *Am. Or. Soc.* Mr. Williams and Dr. Ward paid due tribute to the self-sacrificing labors of Mr. Haynes in connection with the work at Niffer. With a small Turkish escort he is alone in the desert, no European near, surrounded by the rude and often turbulent natives, and continuing his work through the last summer, the heat at times reaching 118° in the shade.

Professor Hilprecht, of Philadelphia, who is publishing the inscriptions dug from the temple of Bel, at Niffer, reports that he hopes to have Part 2 of Volume I in the printer's hands before leaving for Constantinople and the Hittite region in May.

CLASSIFICATION OF ORIENTAL CYLINDERS.—At the Annual Meeting of the American Oriental Society (March 29-31) Dr. Wm. H. Ward read two interesting papers on the classification of two classes of Oriental cylinders—Hittite and Mesopotamian. They bring new light into a difficult field, and will be welcomed by the custodians of museums where such objects are collected. The ancient seals have a great deal to tell us regarding history, art and religion, and such a classification as these papers propose will aid much in the study. Seals with Hittite inscriptions were for the first time made known and their style gave a sure basis for the accumulation around this nucleus, of a large Hittite series.

ASSYRIA.

INSCRIPTION OF RAMMAN-NIRARI.—In connection with the paper on the recently discovered tablet of Ramman-nirari, read by Dr. Lyon at the American Oriental Society (March 29-31), the original, an alabaster slab, about 10x13 inches, was exhibited and explained. The tablet is a duplicate of one in the British Museum and commemorates the restoration of an Assyrian temple in the fourteenth century B. C. The stone is beautifully written, well preserved, and the variants from the British Museum duplicate very interesting. The original scribe made various mistakes, and there are several erasures and corrections by the hand of a reviser.—*N. Y. Independent*, April 12.

PERSIA.

PERSIAN CERAMICS.—Mr. Henry Wallis is about to publish another superb volume on Persian Ceramic art, enriched with plates after drawings made for the purpose from specimens belonging to the rich collection of Mr. F. D. Godman, who has done so much to increase

our knowledge of this branch of Mohammedan art. The first volume dealt with Persian vases of the XII century; this new volume is concerned with the similar, but superior, and generally less injured tiles of the same epoch, the decorative motives of which evince a great advance in design. For their color and design the tiles may fairly be considered the finest specimens of Oriental Ceramic art. The volume contains forty chromo-lithographic plates.—*Athen.*, March 24.

PALESTINE.

JERUSALEM.—NEW EXCAVATIONS.—The chairman of the Palestine Exploration Fund has received a letter from the Foreign Office informing him that a Firman has been granted by the Sultan for permission to excavate in Jerusalem for two years on the usual conditions. The committee will, therefore, be able to resume the excavations which proved so successful under Sir Charles Warren in the years 1867-1870. The task of superintendence has been entrusted to Mr. Frederick Jones Bliss, who is already at Jerusalem, and will commence work without delay.—*Acad.*, March 24.

SYRIA.

SINJIRLI.—Some reports of the Sinjirli excavations by Dr. von Luschan have been made from time to time. Recently the Berlin *Mittheilungen aus den Orientalischen Sammlungen*, 1893 (*Heft XI*), gave a lot of new details based on the new diggings made in these interesting remnants of Hittite civilization and literature in the Amanus regions north of the gulf of Antioch. In addition to a number of other valuable finds of historic importance in connection with Hittite architecture and sculpture, a large memorial stone tablet of the Assyrian King Esarhaddon has been found, in which in cuneiform inscription the king reports his victory over the Ethiopian and Egyptian King Tirhaka (*cf.* Is. 37: 9). The vanquished king, whose physiognomy is that of a genuine Negro, is reported in the inscription to have been pursued into Egypt, his son, Usanakhuru, falls into the hands of the victor and is put into chains. Memphis is captured, etc.—*N. Y. Independent*, May 24.

DAMASCUS.—BURNING OF THE MOSQUE.—The famous mosque of Damascus was nearly destroyed by fire last October, but the Turkish Government, regarding it in the light of a national calamity, and fearful of the effects upon its subjects, have successfully concealed the fact till recently. From a letter in the London *Times* it appears that while the library, containing many priceless manuscripts, was saved, the greatest literary treasure of the Mahomedan world was destroyed.

This was the only remaining one of the four copies of the Koran made by order of the Caliph Othman in the year A. H. 30 (A. D. 650-1). All other copies were collected and burned at that time, and these four were deposited in Medina, and the three metropolitan cities Kufa, Bassorah, and Damascus. These constituted the binding authority for the text, and the later manuscripts have been derived from them. The Damascus copy, of whose genuineness there is said to have been no doubt, was not kept with the library but in a separate place in the mosque, and was unfortunately forgotten until it was too late to rescue it. The minarets and the tomb of Saladin are uninjured, and some of the walls of the main building are standing. Among them is one which formed a part of the cathedral of St. John the Baptist, which Omar found on this spot at the time of his conquest in A. D. 635, and on which is the remarkable Greek inscription still legible, "Thy kingdom, O Christ, is an everlasting kingdom, and Thy dominion is from generation to generation."—*Nation*, March 15.

ASIA MINOR.

EPHESOS.—THE GOLD COINAGE OF THIBRON.—At a sitting of the *Soc. des Antiquaires* M. Babelon described two gold coins of Ephesos, a stater and a hemi-stater. They were coined at Ephesos in 400 B. C. when the Lacedæmonian harmost Thibron or Thimbron came there to organize an army to protect the Greek cities of Asia menaced by Tissaphernes after the retreat of the Ten Thousand. Ephesos was Thibron's base of operations, and he coined gold coins as military chief in the field after he had exhausted his supply of darics. Only twice did the mint of Ephesos, which was so prolific, put gold coins in circulation: once this Thibronian coinage in 400; a second time from 88 to 86 B. C. when Ephesos allied herself to Mithridates and prepared to assist him against Rome. Therefore, at Ephesos as at Athens the coinage of gold has a military and exceptional character.—*Bull. Soc. des Antiquaires*, 1893, p. 84.

HALIKARNASSOS.—M. Michon publishes in the *Bull. corr. hellen.*, 1893, p. 410, pl. xvi, a draped female statue from Halikarnassos, now in the Louvre. Its first owner was M. J. de Breuvery, who travelled in the Orient in 1829, visited the site of Halikarnassos, and there secured this statue and an altar. The head and the left arm, cut separately, are wanting, as well as the greater part of the right arm. The type is severe and monumental, and evidently the statue was part of the decoration of a structure. It has been generally regarded as a caryatid from the Mausoleum itself. M. Michon, however, thinks this doubtful, and accepts only with a query M. Rayet's date of the middle of the fourth century.

LYDIA.—EPIGRAPHIC AND GEOGRAPHICAL STUDIES.—In the *Mith. Athen.*, 1894, p. 102-132, K. Buresch contributes to *Lydian Epigraphy and Geography*. An inscription from Antiocheia on the Maeander is published, giving a list of cities which joined in honoring some unknown person. The *δῆμος ὁ Καισαρέων* is identified with Tralles. Cf. Plin. N. H. V. 120. The Trallians probably adopted this name in gratitude for assistance rendered by Augustus after the earthquake of 26 B. C. After Nero's time the new name occurs only combined with *Τραλλιανοί*, and in this combination it is found even in the early part of the third century after Christ, though only in official language. The titles of *νεοκόρις* and *μητρόπολις τῆς Ἀσίας* were probably given to Tralles by Caracalla. These results are derived from coins and inscriptions of which two are published. The *Νεοκαισαρεῖς* of the inscription are shown to be the Philadelphians. The Mysomakedones are shown to have lived near Mt. Tmolus, probably either to the east or south-east. The sites of several other towers of Lydia are determined.

COINAGE OF LYKIA.—M. Babelon remarks in a recent article in the *Revue Numismatique* (1893, No. 3). "The Cabinet de France (Bib. Nat.) has been recently enriched with a considerable number of coins of Lykia. The majority of these new pieces belong to the dynasts who coined money in their own names in different Lykian cities during the V and VI centuries. This interesting section of our national collection of coins, which had remained stationary for more than a quarter of a century has thus been suddenly about doubled in number and importance. I have described and reproduced these coins of Lykian dynasts in the volume of the Catalogue of Greek coins just issued under the generic title *The Persian Achaemenidae*." An examination of this work will show how rich is our series of primitive Lykian coins without royal names; will disclose names of dynasts heretofore unknown, such as *Utêvês* and *Khadritimês*; will show the great variety of the monetary types of Spintaza, Tethiveibis, Kuperlis, Kheriga, Kreis—the national Lykian hero whose glory is celebrated on the great stele of Xanthos—, Vexêrês, Denevelês, and Perikles. The plates of the Catalogue bring to view strange types, such as the "triquêtre" with arms ending in cock's or swan's heads, and also beautiful heads of dynasts, the earliest monetary effigies ever struck, with the exception of the standing effigies of the Achaemenid princes on the darics.

MAGNESIA (ON THE MÆANDER).—EXCAVATIONS IN THE THEATRE.—In the *Mithteil. Athen.* (1894, pp. 1-92), F. Hiller v. Gaertringen, O. Kern and W. Dörpfeld give an account of *Excavations in the Theatre of Mæander* (plates I-IV; 17 cuts). After an introduction on the state of the site

and the history of the excavations, Hiller v. Gaertringen discusses 64 inscriptions, a number of masons' marks being counted as one. The inscriptions are for the most part honorary and dedicatory. One (No. 5) in honor of Anaxenor contains the lines of Homer (Od. IX, 3 sq.) with the omitted iota subscript (*i. e.*, adscript) mentioned by Strabo XIV, 1, 41, p. 648. Another (No. 37, given in fac-simile) mentions an artist Apollonios, son of Tauriskos from Tralles. The artists of the "Farnese Bull" were Apollonios and Tauriskos of Tralles, but cannot both be identical with the persons of this inscription as they were sons of Thenekrates or Artemidoros (Plin. xxxvi, 34). Probably the Trallians of the Magnesian inscription belonged to the same family with the others, and possibly Tauriskos the father of Apollonios may have had a brother Apollonios, in which case it is not necessary to assume more than one Tauriskos.

O. Kern publishes and discusses a marble basis in the form of a table-tripod. The legs end in claw feet and are adorned with many lines, perhaps veins. Between two of the legs is a Hermes standing on a plinth with the inscription:

Ἑρμῆς εἰμι Τύχων, ἐκ Χαλκίδος οἶτος ἐκείνος

Ἀντίλοχος μ' ἐποίησε πόλιταις πᾶσι χορηγόν.

This is a tripod-statue, like the satyr ἐπὶ τριπόδων of Praxiteles. The character of Hermes Tychon is discussed. He appears to have been the genius of luck.

Dr. W. Dörpfeld treats of the theatre building itself. The cavea had two diazomata, now not to be identified owing to the destruction of this part of the theatre. The lower diazoma was reached by stairs from the parodoi. There were five cunei in the lower part, probably more higher up. Little remains of the seats, but enough to show that they were not, as is usual, made of one stone. Cavea and orchestra have the form of a lengthened semicircle or truncated ellipse. In Greek times the orchestra proper was a circle, and had a passage about it, which served also as a drain. The erection of the Roman logeion cut off part of the orchestra. A subterranean passage similar to that at Eretria (A. J. A. vii, p. 43), existed in the Greek theatre probably from the centre of the orchestra to a point under the "scene-building." A Roman passage in the form of a T begins under the front wall of the Roman logeion, and ends in two short branches near the middle of the orchestra. The theatre was built in the fourth century B. c. (probably), and not much later the skene received additions. Early in the second century B. c. it was rebuilt in marble. Several centuries later it was changed by the erection of a Roman logeion before the proskenion. The theatre was probably destroyed

about 263 A. D. The remains of this theatre furnish confirmation for the view that the action in the Greek theatre took place in the orchestra. Connected with the theatre was a building of five rooms of different dates the purpose of which is uncertain.

Otto Kern publishes in the *Mitht. Athen.* (1894, pp. 93-101) *Theatre-inscriptions from the Agora in Magnesia on the Mæander* (plate v). These consist of three almost complete records of victors in the theatrical contest at the *Πομπαια* besides three fragments. The inscriptions belong probably to the first half of the first century B. C. The names of writers of tragedies, comedies, and satyr-dramas, as well as those of the chief actors are given. The proof that satyr-dramas continued to be performed at this time is important. The names of the tragedies are similar to those of the fifth century when not actually identical with them. One comedy, by Metrodoros, son of Apollonios, bears the familiar title *Ὀμῶσις*. The names of these otherwise unknown poets are: *Tragedians*: Theodoros, Polemaios, Glaukon; *Comedians*: Metrodoros, Agathenor, Diomedes; *Satyr-dramatists*: Theodoros, Polemaios, Harmodios, Theodoros, Polemon. Of these last, two are identical with the tragedians.

PERGAMON.—THE EX-VOTO OF ATTALOS AND THE SCULPTOR EPIGONOS.—Under the above title M. Salomon Reinach publishes a study in the *Revue des Études Grecques* (Jan.-March, 1894), which is mainly an examination of an article by Adolf Michaelis in the Berlin *Jahrbuch d. Instituts*. Since Brunn's article in 1870 (*Annali*, 1870, p. 292) it is admitted that there exist partial replicas of two of the groups of statues set up by the Kings of Pergamon in honor of their victory over the Galatians. These are: (1) Dying or fighting Gauls, Amazons, Giants and Persians, from the groups dedicated on the Athenian Akropolis, mentioned by Pausanias. They were found in Rome early in the XVI century. The original comprised four sets of small figures relating to the contest of gods and giants, of Athenians and Amazons, of Athenians and Persians, and of Asiatic Greeks with Gauls or Galatians. In each case it is probable that the vanquished alone were represented. (2) A series of large statues in gable-like arrangement, probably on the Akropolis of Pergamon: of this there remain the statue of a Gaul in the Capitoline Museum, called the Dying Gladiator, and the so-called Arria and Paetus at the Ludovisi Villa, which even Raoul Rochette recognized to be a Galatian killing his wife and himself.

In 1889 M. Reinach himself published a paper on *The Gauls in ancient art* (see *Journal*, 1889, p. 259) which included a study on derivatives of the Pergamene *ex-votos*. Michaelis has added considerable new information: but in the present paper M. Reinach differs

from some of his conclusions, especially in so far as they relate to a group of a woman lying dead while a child is still hanging to her breast. A xvi century drawing of this group has been found by Michaelis at Bâle, and this shows that the group from which it was copied, now in the Naples Museum, was changed by a xvi century restorer who removed the child. M. Reinach seeks to explain the discrepancy of the Amazon costume of the woman and her carrying a child, as an artistic license referring to the Galatin habit for the mothers to carry their children with them in battle. This group M. Reinach would attribute to the sculptor Epigonos (see Pliny) and in view of the fact that the name of Epigonos has been found on five bases of statues at Pergamon, he believes that in Pliny's text we should read this name instead of the corrupt reading Isigonos among the sculptors of the commemorative groups.

Against the opinion of Michaelis, Reinach does not believe that the Athenian groups are by the hand of Epigonos, *i. e.*, the same artist who executed the Pergamene figures. He restores the Pergamene groups as follows: in the centre of the gable the suicide scene (Ludovisi group): on the right, the dying Gaul of the Capitol; and on the left the dead Galatian mother with her infant. The sculptor of the Athenian groups, in imitating this motif, corrupted it by turning the mother into an Amazon, because there was no place for Galatian women in his composition.

RHODES.—DATES OF ARTISTS.—In the *Jahrbuch d. k. deut. arch. Inst.* (1894, pp. 23–43), F. Hiller v. Gaertringen discusses the *Dates of the Rhodian Artist's Inscriptions*. Nine fac-similes of inscriptions are given (*Sitzungsber. d. Berl. Akad.*, 1892, p. 845 ff.; *Mith. Athen.*, 1891, p. 110, iv and 4; a new inscription signed Ἐπιχάρμος Σολεὺς ᾧ ἂ ἐπιδαμία δέδοται καὶ Ἐπιχάρμος Ἐπιχάρμος Ῥόδιος ἐποίησαν; two parts of an inscription, *Bull. de Corr. hell.*, 1890, p. 277 ff.; an inscription -ῆνης Δημοτηρίου Ῥόδιος ἐποίησε; Löwy, *Inscr. gr. Bildh.* 546, and elsewhere; a new inscription Φύλης Πολυγνώτου Ἀλικαρνασσεὺς εὐεργέτας ἐποίησε; *Mith. Athen.*, 1891, p. 120 ff., from drawings by Koldewey. As the result of the discussion of these and other inscriptions it appears that Rhodian art had a history of almost two centuries. The earlier artists wrought during the latter part of the third and the earlier part of the second century B. C., the later ones in the first half of the first century B. C. Several names of artists are found between these periods, but after B. C. 43 Rhodian prosperity and with it Rhodian art was destroyed. If the combination of the Rhodian Hagesander et Polydorus et Athenadorus, whom Pliny N. H. xxxvi, 37 mentions as artists of the Laocoon group, with the Hagesandros and Athenadoros of inscriptions is warranted, as seems

to be the case, the Laocoon is to be assigned to about the second quarter of the first century B. C.

TRALLES.—EXCAVATIONS.—In the *Mith. Athen.* (1893, pp. 395-413; pls. 12, 13; 4 cuts), C. Humann and W. Doerpfeld report on *Excavations in Tralles*. Humann describes, with map, the site of Tralles on a hill above the modern Aidin, and the course of the excavations, carried on for four weeks in October, 1888, under Turkish auspices, but at the expense of the Oriental committee in Berlin. The ancient city has furnished a great part of the stone for building Aidin, and tentative diggings in several places resulted only in unimportant finds of sculptural fragments. The theatre was partially excavated, and Doerpfeld describes the results. The orchestra was more than a semi-arch, perhaps originally a circle. The original floor was probably of earth, later covered with marble slabs. An open drain surrounded it in the early period. The diameter was then 25 m., later 26.40 m. Under the orchestra was a passage, similar to those found at Eretria and Magnesia, of Roman date. The cavea had two *diazomata*, and, in the lower part, was divided into eight *cunei*. The seats were made of a separate piece from the foot-rests. The front row of seats had arms at the aisles. The "scene-building" was about three metres high and six metres wide, supported upon three rows of columns, the middle row being double columns. A wall hid the columns from the orchestra, but perhaps this wall and even the row of columns next it belonged to a restoration. This structure cannot have been a real stage, as actors on it would have been partially hidden from spectators sitting in the lower part of the cavea. A flight of stone stairs seems to have led from the middle of the "scene-building" into the orchestra. The "stage-building" extended from side to side of the orchestra, leaving no room for parodoi. The orchestra was entered by passing under part of the "scene-building" and the last seats of the cavea. The exact dates of the building and rebuilding of the theatre cannot yet be determined.

KYPROS.

LAPITHOS AND PTOLEMY SOTER.—M. Philippe Berger has communicated to the *Acad. des Inscriptions* a Phœnician inscription found at Lapithos in the northern part of Kypros. Its text relates to the events that followed the conquest of the island by Ptolemy Soter. It emanates from one of the first governors of the district of Kerynia, a member of one of the great Phœnician families of the island, who thus desired to preserve the memory of the protection granted to him by his god Melkart, the Poseidon Larnakios. This inscription indi-

cates the existence of a new local era, the era of Lapithos, which begins, according to Mr. Berger, in 308 B. C.—*Revue Arch.*, 1894, I, 107; *Chron. des Arts*, 1893, No. 36.

HATHORIC VASES.—M. Collignon communicated to the *Soc. des Antiquaires* some fragments of Cypriote vases in the Museum of the Louvre representing the head of the goddess Hathor. They prove that the female head on a vase in the British Museum, supposed by Prof. Ramsay (*Journ. Hell. St.* 1882) to come from Phocæa, is a Hathoric head, and that the vase itself is probably of Cypriote manufacture.—*Bull. Soc. des Antiquaires*, 1893, p. 83.

KRETE.

RECENT INVESTIGATIONS.—Dr. Halbherr is at present in Kreta, but it is premature to give an account of his investigations. Mr. Myers and two Italian archæologists are also exploring different parts of the island—of this more anon.

PREHISTORIC DISCOVERIES.—We quote the following from the Athens correspondent of the *Times*: "Some interesting discoveries have just been made in Central Kreta by Mr. Arthur Evans. The sites of two hitherto unknown primeval cities have been found, one with an acropolis and a votive grotto containing Mycæan idols; the other at Goulas, with stupendous ruins... also with an acropolis and the remains of a primitive palace. Traces were also discovered of the Mycæan system of writing, which seems to have been closely parallel with the Hittite and pictographic systems. Another system, apparently alphabetic, has been discovered, approaching more nearly to the Cypriote syllabary, the objects being reduced to linear forms."—*Acad.*, May 5. [It is very probable that the ruins here referred to are those already known, and that the discoveries are really confined to the domain of epigraphy.—Ed.]

KAMARAI. —A hoard of Mycæan vases has been found in a grotto near Kamarais on Mount Ida. They resemble some vases of the island of Thera, and especially some lately found in Egypt. Mr. Myers has visited the locality in company with the president of the Greek Syllogos of Candia, and has copied the vases with a view to writing on the subject.—*Athen.*, Dec. 16.

EUROPE.

GREECE.

REPORTS ON ARCHÆOLOGICAL DISCOVERIES AND INVESTIGATIONS IN GREECE.—The idea of giving a synopsis of archæological discoveries

and investigations, of which our JOURNAL has been so zealous a propagator, and, one might almost say, a pioneer, is becoming every year more popular. This is especially the case in the field of Greek antiquities. M. Reinach not only continues his invaluable and detailed *Chronique d'Orient* in the *Revue Archéologique*, but has occasional reports of a slightly different character in the *Gazette des Beaux Arts*, *Chronique des Arts*, etc. Very full reports on Greece are now being published in the *Bulletin de Correspondance Hellénique*, and some space is devoted to News in the *Journal of Hellenic Studies*, the *Classical Review* and in the *Jahrbuch d. deut. archäol. Instituts*, and even in such reviews as the *Revue de l'histoire des Religions*. We refer our readers to these sources. In the *Bulletin* they will find especial attention given to epigraphy, and in the *Jahrbuch* great stress is laid upon additions to museums.

DAMAGE BY THE EARTHQUAKES.—It is hardly possible to report on the damage done to monuments in Greece by the successive earthquakes this spring. The damage was very general throughout the north-east. In Athens a large block fell from the Gate of Hadrian and a capital from the gate of Athena Archegetis, damage was done to the monument of Philopappus and to several columns and to the epistyle of the Parthenon. In Livadia the mediæval tower, in Calchis part of the fort, the Turkish mosque and the tower of the Church of the Holy Preparation fell down.

The commission of engineers and architects appointed to inspect the ancient remains after the earthquake is of opinion that various parts of the Parthenon must be strengthened by iron clamps. A definite resolution has not yet been adopted. Still more serious is the damage done to three well-known monuments of the Middle Ages: the Monastery of Skripu on the site of the ancient Orchomenos; that of Daphni, near Athens; and that of St. Luke at Livadia. The injuries at the last named are principally centered on the structure, those of the Daphni Monastery in the mosaics. When the ancient church of this monastery was damaged, not very long ago, by an earthquake, the Greek Government determined to restore it, and Signor Novo, of Venice, has devoted a couple of years to it. After pulling down the old cupola and erecting a new one of the same dimensions he replaced upon it the old mosaics which had been taken to pieces, and he performed the same operation for the mosaics on the walls of the body of the church. The work was already half completed when the earthquakes began. The church, indeed, has suffered little, thanks to the fact that its walls had been secured last year by the insertion of triangular bands of iron; but the shattering of the cells which are built above the church shows that even the church itself would suffer

seriously from a continuance of the shocks. So it has been determined to remove to the Central Museum at Athens such of the ancient mosaics as the Italian workmen have not yet replaced on the walls of the church. Even with regard to the mosaics already restored to their old positions, some further step will probably be taken, as the committee has expressed the opinion that, owing to its faulty construction, the church cannot, in spite of the bands of iron, be kept intact for more than half a century.—*Athenæum*, May 19.

HERAKLES AND PELIAS.—“Herakles at the funeral games of Pelias on the chest of Kypselos” is discussed by F. Studniczka in the *Jahrbuch d. Inst.*, 1894, pp. 51–54. In opposition to Pernice (*Jahrb.*, 1888, p. 365 f.) it is shown that Herakles belongs to the representation of the funeral games, and that he is supposed to have his place at the turning post of the race course, like Phoinix at the funeral of Patroklos, *Il.* xxiii, 359 sq.

LAOCOON-MONUMENTS.—In the *Jahrbuch d. Inst.*, 1894, pp. 43–50, R. Förster discusses *Two more Laocoon-Monuments* (3 cuts). The first is a fragment of a vase of so-called Samian ware, found in 1866 at Cirencester. The little relief is somewhat damaged. A muscular man, in a posture recalling that of the Laocoon, is struggling with two snakes. Beside him is a small figure, perhaps a son of Laocoon, perhaps (if winged, which is uncertain) an Eros with reference to the love of Laocoon for Antiope. The second monument is an impression of a seal on a deed in possession of Lord Arundel at Wardour Castle. The deed is dated 1529, and the seal is that of Thomas Colyns, prior of Tywardreth in Cornwall. It was first published by C. W. King in the *Archæological Journal* (London, 1867) xxiv, p. 45–54. King believed it to be a work of the best period of Greek gem-engraving. Förster shows that it is modern, and of no use for the restoration of the Laocoon group. A gold plaque in the museum at Berlin is published.

A MYCENEAN BULL-FRIEZE.—This is the title of an article by F. Hauser in the *Jahrbuch d. Inst.*, 1894, pp. 54–56 (cut). The fragment in the British Museum (*Catalogue*, by A. H. Smith I, No. 5, Perrot et Chipiez, *Hist. de l'Art*, vi, p. 646) is republished and interpreted not as a lion but as a bull, and shown to resemble the bulls of the Vaphio cups. The fragment probably came from Mykenae, and adds probability to the view that the Vaphio cups and the bull of Tiryns are the work of native artists.

NIKAGORAS, A RHODIAN STRATEGOS.—On a stone, the form of which indicates that it was the base for a sepulchral monument, has been

recovered the inscription wrongly read by Biliotti and Cottret, *L'isle de Rhodes*, 1881. The inscription reads

Νικαγόρας Παμφιλίδα
[καθ'] ἰσοεσαν δὲ Νικαγόρα
Λαδάρμιος.

We learn from this that Nikagoras came from a deme in the inner mountain region of Rhodes, known to-day as Aláerma. Hence Peraia where the Karpathians erected a monument to him was not his native place.—F. HILLER VON GAERTRINGEN, in *Arch. Epigr. Mitth. aus Oestr. Ungarn*, 1893, Heft 2.

TLESON AND ERGOTELES.—Amongst some vases in the possession of a Florentine dealer in antiquities is a cup in which signatures of Tleson and Ergoteles have been ignorantly combined by the discoverer or some later hand. To the 36 signed works by Tleson listed by Klein M. S., pp. 73–75, others may be added which, with the present, brings the number up to 41, showing him in productivity standing next to Nikosthenes. This is the second signature known of Ergoteles.—LUDWIG POLLAK, in *Arch. Epigr. Mitth. aus Oestr. Ungarn*, 1893, Heft 2.

PHEIDON KING OF ARGOS AND EARLY GREEK HISTORY.—In an article published in the *Revue Numismatique* (1894, I.) entitled *La date de Pheidon*, M. Theodore Reinach says: "Pheidon, king of Argos, is the first really tangible individual in Greek history; hence the serious importance of determining his date and the endless discussions that have arisen in regard to it. At present, as among the ancients, there reigns a perfect anarchy of opinions, and the dates assigned to the ἀκμή or climax of the reign of the Argive King vary from the beginning of the IX century to the year 580—a variation of three full centuries. As the name of Pheidon is connected with the history of the introduction of coinage in Greece, numismatists have often based themselves on the presumed date of his reign to draw conclusions in regard to that of this great reform. This is, in my opinion, a false method of reasoning: for, on the contrary, it is from the positive data of numismatics that we must derive assistance in making a choice among the divergent indications of ancient and modern historians."

It may be granted, with Herodotus, that the Peloponnesian cubic measures owed their institution to Pheidon, and that to him also, as Pliny and Ephoros say, is due the system of weights. On the contrary, that he coined the first money, in the Æginetan mint, a fact stated by Ephoros and Aristotle, is manifestly false. One item in Aristotle's statement is, however of considerable interest. He states that Pheidon consecrated in the Heraion of Argos iron δβελίσκοι or spits, which were the medium of exchange before the introduction of coin-

age. But when Aristotle adds that this gift of Pheidon was destined to commemorate the abolition of the old iron currency, it is impossible to agree with his explanation. Rather, it must be supposed that the *ὀβελίσκοι* were placed in the temple with the practical object of preserving the regular legal standards *ne varietur* of a system then in vigor and expected to remain so. Such a custom is well attested, in other cases, at Athens, Delos, Labadeia, &c. The conclusion is that Pheidon far from abolishing the *ὀβελίσκοι* really introduced and regulated them. This simple fact places him far back of the period now commonly preferred—the VII or VI centuries. For it should be remembered that electrum coinage was invented by the Lydians toward the middle of the VII century. Shortly after the Æginetans commenced their coinage, first of electrum and then of silver. Now the Æginetan silver coinage follows the Peloponnesian, that is, the Pheidonian ponderal system. Hence, this system must have had, before 650, the time to spread not only throughout the Peloponnesus but to Aegina: furthermore, it ruled at Athens in the time of Solon (595 B. C.). Certainly a century would be short enough for such a propagation of the Pheidonian system. This would date its creation from the middle of the VIII century, which is precisely the date assigned to Pheidon by the famous text of Pausanias, according to which he celebrated, in concert with the Pisatōi, the eighth Olympiad (748 B. C.), and this text, thus confirmed by Aristotle, furnished the long-sought corner-stone of early Greek history.

ARGOS.—THIS SPRING'S EXCAVATIONS AT THE HERAION.—Mr. Robinson, Curator of the Boston Museum, happened to stay at Argos at the time of the close of this spring's excavations under Dr. Waldstein, and in a letter to the *Nation* (May 31) dated Athens, May 4, he describes the results quite fully and we will quote his words. "I had the good fortune to spend three days there [at the Heraion] just before the close of this season's work, and am sure that any member of the Archæological Institute of America would have felt as well pleased as I did at the manner in which the Institute's appropriation has been expended, not only as regards the value of the discoveries, but in the careful and intelligent handling of the soil, with a view to noting every bit of evidence it afforded on questions which might arise.

"The site of the Heraion is literally one of the most commanding that could be thought of for a temple. No one who has crossed the plain of Argos can ever forget the beauty of that country. More level than Attica, its appearance is also more restful. There is hardly a mound to break its surface until one reaches the foot-hills of the mountains which surround it, except where the sea makes its crescent on the

south. The long, sweeping curve of its slope is broken near the base by a small crest or ridge, into which it rises just before it joins the plain, and this crest was chosen as the site for the temple of Hera.

"The original temple was placed not upon the summit of this crest, but upon the upper part of the southern slope, where a platform or terrace was constructed for it, and here it must have formed a conspicuous object from every quarter of the plain. The only unquestionable remnant on the site is a portion of one low wall, on the top of which the circles traced in the stone to indicate the size and position of several of the columns are still clearly visible. This bit of wall is much more primitive than those of the Olympian Heraion, and bespeaks a decidedly earlier date for this temple, which may therefore be the oldest Greek temple that we know. The pavement of the platform is in remarkably good preservation. Above it, and separated by a thin layer of earth, was a concrete flooring, several patches of which are left. The excavation of the later terrace is a remarkably clean piece of work, and reflects great credit on those who had to do with it. Every answer which the place still had to give as to the character and details of the new temple and its immediate surroundings, the student finds here, readily at hand. What actually remains *in situ* is the walls of the foundations, several courses high, including those of the peripteros and the interior, and that of the steps or incline by which the temple was entered. These foundation walls are not preserved up to the level of the floor; and from the manner in which they were left it is evident that they—and probably other portions of the temple—were not destroyed by nature or by violence, but carried away, block by block. There is reason to believe, therefore, that the careful examination, by an architect, of the towns in the plain might result in the discovery of important members built into mediæval or later structures. On and near the terrace are sufficient fragments to give the general indications of the proportions and style of the temple, though here again it is surprising that there are not more. I believe that only three fragments of capitals have been unearthed, and scarcely any of the columns themselves. On the other hand, a number of blocks of the upper members have been found and these show that both the triglyphs and the background of the pediments were of black marble.

"The retaining wall which separated the terrace of the later temple from that above it, formed the back of a long stoa or portico, in front of which votive statues and stelai were erected. The bases and grooves showing where these stood are numerous, but, beyond a few inscriptions, nothing of the works themselves remains.

"Below the new temple is a fourth terrace, which seems to have been occupied for the greater part, if not the whole, of its length by another portico, only a portion of which has yet been uncovered. The greater part of the working force has been concentrated upon this site during the present season, partly because it seems to have been one of the principal buildings of the sanctuary, and might be expected to contain inscriptions or other monuments of importance, and partly because Dr. Waldstein hoped that in the enormous mass of earth under which its remains are buried he might find sculptures or other valuable objects, thrown over from the terrace of the temple. Some fragments of metopes have already been found here, and quantities of terracotta fragments. But not more than half of the portico had been uncovered when the work had to be brought to a close, and we cannot say what may yet be waiting to be brought to light.

"I have spoken of only the most important buildings which have thus far been unearthed, but there are others, partially disclosed this year, which promise to be no less interesting, some of them being undoubtedly within the sacred enclosure, and therefore directly connected with the sanctuary. As the plans of these are more or less complicated, a description would be confusing without the aid of diagrams, and for these we must wait until new drawings of the site have been prepared. From this slight account, however, it will be seen that the architectural discoveries are not the least important that have been made here. They are in fact much more extensive than I had expected to find them, and well deserve to be carefully worked up.

"Of the sculptures, the now famous Hera head still remains the most beautiful and the most interesting. Of this and the other fragments, which are now familiar in America through casts and photographs, I need not speak. This year, besides the fragments found on the lowest terrace, several have been brought to light elsewhere, among them the head of a youth, which bears a close resemblance to the female head found by Rangabé on this site. This year, as before, the fragments of decorated pottery discovered are almost countless. Combined they form one of the most remarkable finds of this nature ever made in Greece. By far the larger part are of the early styles, Mykenæan, Dipylon, and, most of all, the so-called "proto-Corinthian," upon the history of which they bid fair to throw new light. The labor of classifying these will be long and trying, but it will give our School one of the best opportunities that could have been desired for publishing new and valuable material.

DOMICAL TOMBS.—"Speaking of pottery, I cannot pass over a most interesting discovery which took place while I was at the excavation—

that of a "bee-hive" tomb of the Mykenai type, which apparently had never been opened since the last body was placed in it. The tomb was roughly hewn in the soft rock, and, the top having fallen in, the vault or chamber is filled to the surface with a solid mass of earth. Gradually its concave walls show themselves, and then the two or three men who can work inside the hole proceed, as carefully as their impatience will allow, to clear the interior down to the level where they may expect to find something. After two days the tomb and its *dromos*, or entrance-passagè, had been cleared out. The tomb measured about ten feet in diameter and the same in height. It contained no less than fifty-two specimens of prehistoric pottery, most of them fine examples of the Mykenai and Ialysos types, with the decorations upon them quite fresh and brilliant. Of these, forty-eight were vases, three were idols, and one was a little chair or throne for an idol, about six inches tall, and gaily painted. There was no metal of any kind.

"This tomb was about a half-mile to the north-west of the temple, near the path to Mykenai. Another was found the day following, much nearer the Heraion. It was empty, but its existence proved that the first was not an isolated grave, and probably there are many others in the neighborhood, as the workmen believe. If so, there may be still another chapter to be written on the history and worship of the old temple near which they were made. What was their relation to it?

"I hope that this and the other discoveries I have described may cause those who are interested in these matters to share the regret I felt when I heard that it was not the intention of the Managing Committee of the School to continue these excavations after this year. It was, as I know, the expectation that the work could be completed with the present season. This, in spite of prophecies, has been impossible, as an examination of the place shows. It is a safe maxim for all work of this kind that you cannot tell what is in a hole until you have dug it; and, in the present case, the more that has been dug the more there has been to dig. Aside from the question of these newly-discovered tombs, which bid fair to be of exceptional importance, the site of the Heraion itself cannot be considered properly excavated until the line of the peribolos wall has been determined and every building or monument within it laid bare. Its entrance is still to be discovered and the approaches by which the different terraces were reached. Two hundred and fifty men have been employed this year, and an average of five members of the School have superintended the work and taken charge of the things found. This is as large a force as can be advantageously employed, yet it is my impression that more

than one season will still be necessary before the work can properly be considered as finished. It would be unfortunate if the results of these excavations were to remain unpublished, yet it would seem a waste alike of energy and money if what we are to regard as a final publication were prepared with a large part of the site still buried. Therefore, in the interest of our School, and for the sake of those who have carried on the work admirably thus far, it is earnestly to be hoped that the committee will find it possible to allow the excavations to continue until they are really completed, and then to publish the results in the manner they deserve." EDWARD ROBINSON.

In a letter dated at the Argive Heraeum, on April 6, Dr. Waldstein gives a brief account of the success which had already attended this spring's excavations of the American School of Classical Studies at Athens, at that place. He had 258 workmen engaged in removing accumulations of soil, and had already completed the excavation of the eastern end of the second temple platform. New ruins of buildings had been brought to light, besides more than a score of basketfuls of vases, bronzes, cut stones, etc. The most important discovery was that of "another metope head in perfect preservation, of the best fifth-century art." This head illustrates perfectly Polycleitan art, and "reminds one of the head of the Doryphoros." Another male torso, from a metope, and a later head were among the discoveries. Much work remains to be done.—*Nation*, May 10.

The following note seems to indicate some discoveries shortly after Mr. Robinson's departure: "At Argos the excavations of the American School have laid bare a large marble building which is believed to be the Gymnasium, as also many tombs of the Mycenæan age."—*Athen.*, May 19.

ATHENS.—TEMPLE OF DIONYSOS ἐν Λίμναις THE ODEION AND THE BAKCHEION.—Dr. Dörpfeld, before bringing this season's excavations near the Pnyx and Areopagus to a close, made still another important discovery, viz., that of the site of the ancient temple of Dionysos ἐν λίμναις, together with statues, reliefs and inscriptions. These last speak of the worship of the god and of his rites, and of the ceremonies attending the reception of those who wished to form part of the Sacred Society of the Iobacchi (Ἰόβακχοι). A large four-cornered altar bears on one side a sacrificial scene, in which may be seen a man preparing to kill a goat, while behind it stands an ox bound to an altar by the horns. On another side is seen a satyr dragging a ram by the horns, with a man standing near ready to fell it with a club, while behind is seen a maenad. A third face represents the figures of Dionysos, Pan and a satyr, while the fourth bears a short inscription.—*Athen.*, March 24.

The Enneakrounos was described by the ancients as being near the temple of Dionysos ἐν Λίμναις and the Odeion, and Dr. Dörpfeld has discovered the remains of a building which may well be the Odeion. All that has been found lately belongs, generally speaking, to the second or third century of our era; but amongst the sculptures there is a head of King Attalos, which is much more ancient. The largest of the inscriptions found at the same time gives us the name of a new eponymous archon called Epaphroditos.—*Athen.*, March 24.

In the *Mith. Athen.* (1894, pp. 143-151), Dr. Dörpfeld writes of his *Excavations at the Enneakrounos* (cf. *Mith.*, 1892, p. 439, sq., and 1893, p. 231, sq.). A rock cut aqueduct with pipes dating from the sixth century B. C., has been followed for about 150 metres. The Odeion mentioned by Pausanias I. 14 as near the Enneakrounos was not found, but south of the Areopagos was found a building of Roman times called *Bakcheion*, the assembling place of the thiasos of *Iobakchoi*, as is stated in an inscription. The hall was 18 x 11 metres in size, divided into three aisles by two rows of columns, and had at the eastern end an apse in which several altars and a great number of sculptures were found. An altar with dionysiac reliefs has an inscription, ΚΟΠΟΤΡΟΘΟΓΑΡΑΑΡΤΕΜΙΝ. Another altar bears the name of Artemis, and a statue of the type of the Artemis of Versailles was found. These were found in a room near the apse, which is believed to be the late Roman Artemision. The *Bakcheion* occupied the site of the ancient precinct of Dionysos ἐν Λίμναις. Deep under the floor of the hall of the *Iobakchoi* a precinct about 40 x 20 metres in size has been found, surrounded by polygonal walls. In this precinct were found many fragments of large vases with black and red figures, the foundation of an altar or table of poros, and a building with a Greek wine-press. Near this ancient precinct of Dionysos is a second precinct with polygonal walls, probably that of Artemis ἐν Λίμναις (Schol. Callimach., H. to Artemis, 172). Excavations are to be renewed in the autumn.

THE PELARGIKON.—In the *Ἐφημερίς Ἀρχαιολογική*, 1894, pp. 25-62, John Williams White writes of *The Pelargikon in the Age of Perikles*, combating the opinion expressed by Dörpfeld (*Mith. Athen.*, 1889, p. 65, sq.) and others, that the Pelargikon existed as a fortification throughout classical times. Inscriptions and all passages of classical authors relating to the question are discussed, and the conclusion is reached that the fortification was not restored after the Persian occupation of Athens.

STATUE OF TAENIA-BEARER.—In the *Mith. Athen.* (1894, pp. 137-139), J. Ziehen publishes (cut) a *Statue of a Taenia-bearer in the Peiræus*. The

marble statue was found near the custom-house at the Peiraieus. The head, left leg from above the knee, and right foot are gone. A youth is represented, carrying in his right hand a bundle of book-rolls, in his left a large alabastron. The youth is nude, save that he has thrown about his neck and shoulders at least fifteen *tæniæ*. The meaning of this is unknown. The statue is of Roman times.

INSCRIPTIONS.—In the *Mith. Athen.* (1894, pp. 110–112), Th. Preger publishes five inscriptions from Athens. Three are in elegiac verse. Of these, two are sepulchral, the third from the basis of a portrait-statue. The fourth inscription is merely the name, *etc.*, of Apollonides, son of Menodoros, *Ἀπολλωνίδης*. The fifth is a brief dedication by one Lokianos to Hermes Epokoos in archaistic characters.

BRONZE TRIPOD.—A. Brückner published in the *Mith. Athen.* (1893, p. 414, pl. 14), an *Athenian grave-find of the geometrical period*. The object in question is a bronze tripod found near the Athenian slaughter-house southwest of the extremity of the Pnyx hill, and acquired in 1883 by the Greek Archaeological Society. Each leg has herring-bone ornament. Over the upper end of each leg is a rolled double spiral, after the manner of Ionic volutes. The hoop supported by the legs is wrought *à jour*, the pattern being in the main a succession of S-shaped spirals. The tripod supported an urn of thin bronze 0.53m. in diameter. The tripod itself is 0.45m. high.

THE SIDON SARCOPHAGI ATHENIAN WORKS.—The *Archäologischer Anzeiger*, 1894, pp. 1–23 in the *Jahrbuch Arch. Inst.* contains an elaborate article by F. Winter on *The Sarcophagi from Sidon* (17 illustrations). Cf. A. J. A., III, p. 97 sq.; 156 sq.; 431 sq. After a very complimentary introduction concerning the new museum in Constantinople and the archaeological activity of Hamdy Bey, the tomb at Sidon is described with its shaft and seven chambers containing seventeen sarcophagi. This tomb is older than the adjacent tomb of Tabnit. The sarcophagi are then described in detail and discussed. The oldest are the “Lycian” sarcophagus and “sarcophagus of the Satrap,” both belonging to the fifth century, B. C. The “sarcophagus of the mourning maidens” belongs approximately to the time of the mausoleum at Halikarnassos. The superb “Alexander sarcophagus” is discussed from various points of view. These beautiful sarcophagi were not originally intended for the tomb in which they were found, but were made (no doubt in Athens) for some important personages and afterwards brought to Sidon. The exact interpretation of the scenes on the Alexander sarcophagus is difficult, and the question for whom it was made remains unanswered. The illustrations are taken from *Une Nécropole royale à Sidon*, by Hamdy Bey and Théodore Reinach.

AMERICAN SCHOOL AT ATHENS. — At a recent meeting, in New Haven, of the managing committee of the American School of Classical Studies at Athens, Prof. J. R. Wheeler, of Burlington, Vt., was elected secretary of the committee, to succeed the late Mr. T. W. Ludlow. Prof. T. D. Goodell, of Yale, was elected Professor of the Greek Language and Literature for 1894-95, and Prof. B. I. Wheeler, of Cornell, to the same office for 1895-96. Mr. Richard Norton was elected instructor. Prof. F. B. Tarbell, of the University of Chicago, was made a member of the committee. The faculty of the school will consist of Prof. R. B. Richardson, director; Dr. Charles Waldstein, Professor of Art; Prof. Goodell, of Yale, Professor of the Greek Language and Literature; Mr. Richard Norton, instructor on Greek vases.

DELPHI.—HISTORY OF THE EXCAVATIONS BY THE FRENCH SCHOOL.—The following notes, taken almost entirely from M. Homolle's reports, will summarize from their very beginning all the stages of the French Excavations at Delphi, which have met with such wonderfully brilliant success. The notices that have hitherto appeared in the JOURNAL have been so desultory and incomplete as to make some such full statement necessary.

The French Chamber, in proposing a commercial treaty with Greece in 1890-91, included a grant of 500,000 francs for excavations at Delphi. The treaty was accepted and ratified by the Greek Chamber. The next step was to expropriate the entire village, which consisted of some thousand lots divided among over three hundred owners. This required the construction of a new village on land which had to be expropriated, divided into lots, built upon and water provided. The estimate was concluded in December 1891.

The French School installed a superintendent in June, 1892: between July and December it constructed a Decauville railroad to carry away the rubbish. All preliminaries having been concluded and the first payments made on October 7, MM. Homolle and Couve proceeded to Delphi on that day and work was opened Oct. 10. A conflict soon arose with the inhabitants, who opposed all work until the complete payment of indemnities. The work-yard was invaded, the workmen dispersed, as they had been before at the time of the laying of the railroad, and excavations could be resumed only with armed protection.

The discoveries made in the first campaign, during the autumn and winter of 1892-93, may be summarized as follows:

EARLIEST DISCOVERIES, 1892-3.—*Topography.*—A new section of the Sacred Way was uncovered, connected with that discovered by M. Haussoulier. It descends in curved line, passing under a house. To the right

the basement of the semi-circular monument in breccia and marble, where fragments partly covered with inscriptions lay on or in the ground. Between it and another ancient basement is a wall of later period.

Architecture.—Beside these basements several architectural pieces were found: enough of the semi-circular monuments to reconstruct it almost entirely; drums of doric columns and cut stone of tufa, from the temple of Apollon; marble shafts of doric columns of fine execution; and Ionic capital of the iv century; the entablature of an Ionic or Corinthian building of about the same period, of fine work; pieces of mouldings, cornices, gutters, a lion-head gargoyle, painted architectural terracottas.

Sculpture.—Fragment of a figure in the style of the xoana, apparently seated. Archaic female statue, draped; female face of archaic style. Several fragments of statues or bas-reliefs. A Roman bust. Fragments of a bas-relief representing a female torso of elegant style.

Various Objects.—A small bronze bracelet,—a small votive bronze helmet,—some Greek, Roman and Byzantine bronze and silver coins,—an axe and stone hammer, a terracotta statuette and some fragments of painted vases,—an inscribed amphora handle.

Epigraphy.—About sixty inscriptions were found: the majority belong to the Alexandrine and Roman periods, a few are anterior to the iv century, and a few contemporary with the Roman empire. There are: acts of manumission; dedications, decrees of the city of Delphi, catalogues; accounts; an oracle; the regulations of a γένος; letters from foreign cities, emperors or Roman magistrates—one of which is in latin.

Among the more interesting texts are: (1) a metrical inscription relating to the miraculous birth of a long-awaited child, who came forth after a sacrifice to the god and in conformity with an oracle. The account and circumstances remind of the cure-steles of Epidauros. (2) Decrees in favor of a χοροψαλτρία from Kyné, of Q. Fufius Calenus, of a χοραῖδης, unopposed victor, who had out of gratitude, executed a piece of the Βάκχαι of Euripides, &c. (3) A latin inscription regarding work required in the territory of Delphi in consequence of inundations. (4) a στοιχηδόν inscription in fine characters of the fifth century containing a series of decrees of the γένος, of the Λαβυάδαι. The regulations concern the admission of children into the γένος, marriage, religious obligations, and funeral ceremonies of the members. Careful provision is made for the role of each magistrate, the procedure, the fines; the oath has here, as in all early and religious legislation, a very important place.

DISCOVERIES IN THE SPRING OF 1893.—The excavations lasted from May 1 to November 15, no work being done in August and September. The surface explored was increased more than ten-fold. The plan drawn up by M. Tournaire, the architect of the excavations, embraces a space of about 150 by 80 metres, comprising: (1) the entire sloping region traversed by the Sacred Way from the Treasury of the Athenians to the point where, after a long curve, it reaches the summit of the Pelasgic wall, in front of the E facade of the temple of Apollon; (2) the terrace that sustains the temple; (3) the temple itself, which is already more than half cleared.

Treasury of the Athenians.—This name given hypothetically to the structure discovered in May was confirmed by direct proof; by Athenian decrees cut on the walls and containing mention of the *θησαυρὸς τῆς πόλεως* "treasury of the city (of Athens)," and of the *οἶκος Ἀθηναίων*; fragments of the dedication of the monument cut in a step, containing the words ΑΘΕΝΑΙ . . ΜΑΡΑΘ . . [it is known that the structure was in commemoration of and erected with the spoils of the battle of Marathon]. The structure—the remains of which are so numerous as almost to make a reconstruction possible—rested on a terrace accessible on the east side and was protected in the rear by a retaining wall built in alternating regular courses and polygonal masonry. It measures about 10 by 6 metres, has the form of a temple *in antes*, of Doric style, and reminds, especially in the outline of its capitals, of the temples of Aigina and Olympia.

The metopes, more or less completely reconstituted, number at least sixteen. The scenes identified belong to the legend of Herakles and perhaps to that of Theseus—a combination seen in the "Theseion" at Athens. The hero in these contests is struggling sometimes with men, sometimes with animals; he bears at times the lion skin and quiver, symbols of Herakles, at times a helmet and buckler, less characteristic symbols, which might also belong to Theseus. The following scenes may be cited: the contest with Geryon, covering two and perhaps three metopes, one representing the triple warrior, a second the oxen, and a third the dog Orthros; contest with a wounded amazon; with an overthrown centaur; with the lion of Nemea, who is being suffocated; with the Cretan or Marathonian bull; victory of Herakles over a vanished enemy; his meeting with Athena. Then came a series of unexplained or incomplete scenes, combats, series of animals, &c.

Inscriptions of the Treasury.—One of the steps was inscribed with the dedication. The walls, from the *orthostatai* to the architraves, were covered with inscriptions, Attic in great part, or relating to Athe-

nians. The arrangement of the courses has been reconstructed by the help of the inscriptions: the antae have been put together from bottom to top and thus give the exact height of the monument. The inscriptions belong to the following categories. (1) Decrees of the Athenian people, of the Marathonian tetrapolis, Delphic decrees in favor of Athenians and a few strangers. (2) Decrees of the Amphiklytons or of the Delphians in favor of Teos (right of asylum). (3) Brief of a dispute between the association of the *τεχνῖται* of Athens and the corporation of Thebes, which was carried in turn before the synod of the Isthmus and of Nemea, before the Amphiklytons, and finally before the Roman magistrates and senate. (4) Catalogues of individuals sent from Athens to Delphi for the celebration of the Pythia (ephebes, priests, theori, pytheasts, etc.)—very important for the study of the attic *γῆν* and the feasts of Delphi. (5) Inscriptions in honor of individuals, mostly Athenians, who had received Delphic citizenship. (6) Musical fragments, in which the poetry is surmounted by signs of vocal or instrumental notation [these will be treated separately below]. The sustaining wall in calcareous stone, placed behind the Treasury is itself covered with inscriptions,—decrees of proxeny and manumission. Finally, tall white marble cippi, whose four faces bear decrees of proxeny and a *pæan* were found on the terrace. Copies of all the inscriptions have been made by MM. Couve and Bourguet.

Further Discoveries.—The Treasury is surrounded by three tufa structures—one above and two below it. Here must have been the *Treasury of the Boiotians*, and here, in fact, have been found the dedicatory inscriptions of several offerings consecrated by Boiotians, or executed by Boiotian artists. Along the sustaining wall, still standing, but with broken feet, was an archaic Apollon, over two metres in height, sculptured, as a broken inscription on the base informs us, by a certain . . . *μεδης*, of Argos. It is a monument of capital importance for the history of Peloponnesian sculpture. A few steps above the temple, along the Sacred Way, were two inscriptions of the fourth century, contemporary with the Sacred War: one contains the accounts of the years 353–342; the other the list of payments made by the Phokidians, in consequence of fines imposed upon them. A considerable space void of monuments extends both on the left of the Sacred Way, between the Treasury and the Portico of the Athenians, and on the right, opposite this Portico. The first site, covered with rocks, may be identified with the sanctuary of *Gê* and the Muses, where doubtless was the stone whence the Sibyl prophesied, and the rock, seat of the primitive oracle near which Python perished. The

second site, uncovered, of circular form, surrounded by benches, may be regarded as the *ἄλως*.

At this point at the end of the Portico of the Athenians and the east corner of the Pelasgic wall the road runs parallel to the walk with rapid ascent. At this elbow a straight staircase came in which perhaps was continued below, toward the entrance to the sanctuary, giving a straight approach. The upper part of the road is bordered, on the right side, by a continuous close line of monuments, as being the spot nearest the temple and the most prized. Pausanias enumerates here a large number of structures, and among the basements there doubtless is that of the Treasury of the Corinthians. No inscriptions have been found to help identification, except one, which appears to be *in situ* and as it bears the letters TAPANTI it probably bore the offering made by the Tarentines after the defeat of the Peucetians. (Paus. x, 13, 10.)

On the opposite side, where the road joins the level of the front esplanade of the temple, about in front of the temple's axis, is a large mass of bluish calcareous stone and marble. Its lower step still bears an inscription commemorating the concession to the Chians of the *προμαρτεία*: the cornice preserves the dedication by them to Apollon. This is the *βωμός* described by Herodotos (ii, 185) as existing at this place. Near by is the base that bore the trophies of Paulus Æmilius, still with its magnificent Latin dedication. Just above was a monument consecrated by Charixenos, praetor of the Aitolians, of which the architrave and cornice have been found. Near by was a column of quite a new type, imitating the stem of the silphium, which indicated the Treasury of the Cyreneans (Paus. x, 13, 7). Some fragments of inscriptions indicate other monuments mentioned by Pausanias, but of uncertain site, such as the Treasury of Siphnos, below the offering of the Liparii, for a victory over the Tyrrhenians—both near that of the Athenians; the *ex-voto* of the Argives, etc.

The Temple.—The Pelasgic wall, whose eastern and western angles are cleared, supports the terrace upon which the temple rests. M. Homolle defers the description of the temple until the completion of the excavations. He calls attention, however, to an aqueduct which ends far underneath the basement of the temple and appears to be the *ἀναπνοή τοῦ νάματος* mentioned by Plutarch. Several hundred inscriptions have been unearthed from different parts of the sanctuary. They fall into the following classes: (1) Decrees of the Amphiktyons or Delphians; (2) Decrees and letters of foreign cities; (3) Letters of kings, magistrates or emperors; (4) Accounts of the temple; (5) Brief of documents relating to the limits of the sacred domain; (6)

artists' signatures; (7) catalogues. Sculptures have been less abundant. The sphinx, of which M. Foucart had seen two fragments has been substantially completed—its head being like that of a colossal Apollon. It was placed on the summit of the column of the Naxians, of which the drum and the capital have been formed.

M. Homolle has been authorized by the French Minister of Public Instruction to commence during this year the preliminary publication of the results of the excavations.

EXCAVATIONS IN THE SPRING OF 1894.—At the sitting of the *Académie des Inscriptions* on May 11, the secretary read M. Homolle's official report, dated April 25, on the excavations carried on at Delphi this spring, of which an almost complete translation is here given.

Excavations were again started on March 27. The program for this year was: (1) To finish the clearing of the temple of Apollon and begin that of the region above it containing the theatre and the famous Leschê of the Knidians decorated with paintings by Polygnotos; (2) To clear all the ground within the sacred enclosure, from the Treasury of the Athenians to the eastern entrance of the sanctuary, and as far as the encircling wall itself on its east, south and west sides; (3) To excavate the space comprised between the southern encircling wall called *Hellenico* and the road, in order to gather up any pieces of sculpture or architecture that might have been cast over it.

In each of these cases the object to be attained was clear and definite and the choice of the sites justified both by Pausanias and by hypotheses based on the rapid fall of the ground. The objects that were especially looked for were the metopes and gables of the temple of Apollon, described by Euripides and Pausanias: the completing pieces of the Treasury of the Athenians, all of which must still exist; the rest of the metopes, which will make it possible to join all the fragments together; the remains of the inscriptions which covered this structure, among which may be the remaining portions of the hymn to Apollon. In the lower part of the sanctuary may be found the bases of the numerous *ex-votos* placed along the sacred way—perhaps the *ex-votos* themselves—everything in fact, that may have come down the slope from above.

The best and most important discoveries thus far this season have been made between the Treasury of the Athenians and the *Hellenico* at the very foot of this wall. Above the wall, near the southwest corner of the sanctuary, a trifle below and to the west of the Treasury of the Athenians, there remain the foundations of the Treasury of the Boiotians. This was consecrated in memory of the battle of Leuktra, was built of greyish blue calcareous stone and covered with

inscriptions. Many of these have come to light; decrees of prexeny in favor of individuals—Thebans for the greater part—though the longest is a boundary regulation.

Epigraphic documents continue to abound, over a hundred having been found since the last campaign. Among these is a signature of the artist Theopropos of Aigina, valuable both as a historic document and because cited by Pausanias; two plaques of accounts of the fourth century; a letter of the Roman senate to the inhabitants of Delphi, who had been the victims of violence at the hand of certain neighbours, a letter which is a fine page of political literature; dedications, decrees in honor of benefactors of Delphi, and especially in favor of the athletes, musicians and poets who had gained prizes in the contests, *etc.*

As the lower strata of the soil are reached, a yellow or black earth so compact as to have the consistency and aspect of undisturbed soil, great numbers of fragments of terracottas and bronzes are found. These appear under the same conditions at each of the points under excavation, but especially before the west front of the temple.

The *terracotta* fragments—for up to the present very few even small objects have been found entire—are divided among the Mykenæan, geometric, proto-corinthian and corinthian styles. The geometric pieces present contain details worthy of study. M. Perdrizet has studied them with care and noted exactly the superposition of the various types in the layers of earth. The interesting results of his observations will be communicated later.

The *bronzes* belong in the majority of cases to the category of sacred utensils, such as tripods, cauldrons, cups, vases, *etc.*, and the excessive humidity of the soil has usually much oxydized and damaged them. One piece has been found in perfect preservation and with fine patina; it is a bird with human head in the oriental style, like those found near lake Van, at Olympia, and Mt. Ptoos: no more complete and beautiful specimen of the type exists. Other pieces of this class of bronzes are: a similar bird, less well preserved; a lion of Assyrian type; three griffin heads, such as decorated tripods; two small horses, and another small animal, a dog or a wolf. One of the griffins equals the finest found at Olympia. The human figure is represented by several statuettes. The earliest is a very primitive piece, recalling the flat terracotta *maquettes* and the Dipylon type of face: another belongs to the series of archaic "Apollon:" an Athena much oxydised, is a delicate work of the fourth or close of the fifth century.

The clearing which is at present being carried on of the hypogeums of the temple and that soon to be undertaken of the terrace of the

temple up to the very foot of the Pelasgic wall, will doubtless furnish many very primitive terracottas and bronzes.

It is yet too early to report on the plan and arrangement of the upper and subterranean parts of the temple, for the clearing is as yet not sufficiently advanced.

The most important discoveries of the last few weeks belong to the domain of sculpture, justifying the confidence felt against quite a general scepticism. The discovery of the metopes of the Treasury of the Athenians was an archaeological event. These exquisite works of the Attic school, exactly dated as they are (c. 480 B. C.), fill a vacancy in the history of Greek art. Their intrinsic value, the comparisons they suggest, the conclusions they justify, make of them a work of the first rank. They compose a group which for vigor and grace of execution, for both artistic and scientific importance, is comparable to the groups of Olympia and the Athenian Akropolis.

This discovery is now supplemented by that of the caryatidae and of a frieze which appears to be that of the temple of Apollon itself. These new sculptures are between twenty and thirty years older than those of the Treasury; they proceed from Attic workshops and they lengthen this most interesting archaic period whose history is now being reconstructed in great part for the first time. For it is the period when archaism was throwing off its last bonds, and when the artists, masters of the technique of their art, were seeking for that ideal of beauty attained by Pheidias.

Archaic Caryatidae.—Three weeks ago there was found at the foot of the Hellenic wall a female head about half a metre in height. It was an archaic work, but charmingly graceful and of youthful beauty. The hair was in long crimped and undulating bands crowned and intersected by double lines of adjusted curls, then came a diadem with metallic ornaments, above which was a sort of tiara or polos resting on an elegant crown of ogees. Observing the remains of the polos I discovered the traces of feet, and concluded that it must have been decorated with a circular frieze of figures. I then remembered a small colonnette with such a decoration found last year in the ruins of a house (see Müller in the *Denkmäler*): it was found to fit exactly on the newly discovered head which was thus proved to belong to the statue of a caryatid. On the same day a second head of equal dimensions was found, still having its polos intact. Though of a somewhat more severe and dry style, it is evidently a work of the same time and for the same purpose as the first, and belonging to the same monument. Compared to the statues of the Akropolis they will be seen

to be among the most highly finished, serene and perfect, with a smile that has something grave and melancholy.

This led to a further discovery. When I went to Delphi in 1891 to settle on the limits of the excavations, I had seen in a garden, on the very site where these two heads were now discovered, the body of a colossal female statue of the type of the Akropolis figures. The style and the arrangement of the hair corresponded exactly to those of the first head, which was found to belong to it. As several fragments had already been adjusted to this torso in the museum, the statue was almost complete. Here then, at the close of the sixth century, is a caryatid executed by Attic artists, a first attempt, a prototype of the *Korai* of the porch of the Erechtheion. To what building did they belong? Certainly to a large edifice of the sixth century, but whether or no to the temple of Apollon itself will be left to the excavations to decide. It should merely be noted in the meantime that the subjects figured on the polos of the two figures,—a Bacchic scene and an Apolline scene,—correspond to the two aspects of the Delphic cult, and to the two compositions that decorated the gables of the temple.

Archaic Sculptured Frieze.—In the same manner as Delphi gives us the model of the Caryatidae of the Erechtheion, she seems to furnish also a first sketch of the Parthenon frieze. There had long existed in the museum an archaic bas-relief which although already published, seems not to have been appreciated at its true value. It represents a quadriga advancing to the right toward an altar. Fifteen days ago was found a fragment of a relief of the same size and style, representing a rape—a man carrying away a woman in his arms and in the act of entering his chariot. The inference immediately suggested by this discovery was that both pieces belonged to one group—and this a frieze. This idea was justified on the same day by the discovery of another fragment on which a horseman is represented mounting, while he holds a second horse. This slab is shown to have been preceded and followed by others on account of the *amorce*s of both right and left slabs still remaining.

Of this frieze, on which a procession of chariots and horsemen was represented, Pausanias says not a word, any more than of the sculptures of the Treasury of the Athenians. It is about .65 m. high and might well suit this temple, which is a little smaller than the Parthenon. If, now, it is really the temple of the Delphian Apollon which is represented, with a certain fantastic liberty, on a new Attic bas-relief in Rome, it would be demonstrated that this is the temple frieze. This is, however, as yet but a hypothesis.

Since these discoveries other slabs of the frieze have been found, almost day by day. One, of which a photograph is sent, represents a group of three seated goddesses, one of whom is Athena; they are conversing and appear to show to each other with curiosity some spectacle in which they are taking a lively interest. This is a piece of careful (*servée*) execution, and graceful design, and the naive gesture by which the last of the three goddesses attracts the attention of her neighbor by touching her under the chin has something especially charming. Few archaic sculptures are as sympathetic.

If the frieze belongs to the temple, it might be attributed to the school of Kalamis: but it involves difficult questions, requiring long study. One fact appears to be certain: it is that this composition is the same as that of the Parthenon frieze: procession of chariots, procession of horsemen, assemblage of gods. In the existence of these two prototypes of Athens at Delphi—caryatidae and frieze—we have a new example of the permanence of traditions and types which is one of the strong characteristics of Greek art.

A further series of photographs, to be forwarded shortly, will exhibit the six reliefs of the frieze that have been found at the close of last week and in the course of the present, and will also exhibit a gable composed of eight figures of divinities and two horses, representing the Contest for the Tripod. We already have about twelve metres of the frieze, including two corner pieces.

Philip of Macedon at Delphi.—One of the inscriptions containing accounts is especially interesting. The funds were administered by an international council of magistrates called *ναοποιοί*. When complete the council had 36 members: three members alternating every month exercised the presidency with the title of *προσάραυ* or *ἐπιμήνιοι*. The irregularities of meetings and in the number of magistrates shows this inscription to belong to troubled times, and, in fact, a war is mentioned in it. This must be the Sacred war, for the following reasons: (1) The Phokidians are at first mentioned among the peoples whose *ναοποιοί* sit on the council; then, they disappear in the very year that peace is signed: (2) The Macedonians appear on the council in this very year and one of their *ναοποιοί* is named Philip, undoubtedly the Macedonian king, for the rest are called, without name *ὁ παρὰ Φιλίππου*. It follows that the inscription dates from 346 B. C. when the treaty was concluded by which the Macedonians were substituted for the Phokidians on the Council of Amphiktyons, and when Philip must have visited Delphi.

Pæan of Aristonoo.—On a stele found in the Treasury of the Athenians is inscribed, in characters of one of the three centuries B. C., a

pæan to the Pythian Apollon, preceded by an honorary decree in favor of the poet. It forms the subject of a short paper by Henri Weil in the *Bull. de corr. hellén.*, 1893, pp. 561-68.

The pæan consists of twelve similar couplets, ending alternately in the formulas *ἰήε Παιάν* and *ὦ εἰ Παιάν*. The sense is complete at the close of each pair of couplets, as follows: I. The son of Zeus and Leto occupies the sanctuary of Delphi by the will of the immortals. II. Since he inhabits the sacred grotto pure and holy oracles and decrees proceed from the subterranean places until then ever terror-giving. III. Purified in Tempe (from the slaughter of the serpent Python), brought back by Pallas, in harmony with Gaia and Themis (its previous occupants), the god takes final possession of the temple. IV. Apollon's gratitude to Pallas: he gives her the place of honor. V. Other gods, Poseidon, the nymphs, Dionysos, Artemis, gather about Apollon. VI. May the god receive our songs and protect us.

The metre is the Glyconian strophe as found in Anakreon and Catullus. The poet's name is Aristonoos, son of Nikosthenes, of Corinth. The following is the entire text.

Δελφοὶ ἔδωκαν Ἀριστονό[ωι, ἐπεὶ]
τοὺς ὕμνους τοῖς θεοῖς ἐπ[οίησεν],
αἰτῶι καὶ ἐγγόνις προξενίαν,
εὐεργεσίαν, προμαντείαν, προ[εδρίαν],
προδικίαν, ἀσυλίαν πολέμον ἢ εἰ—
ρήνης, ἀτέλειαν πάντων καὶ ἐπιτι—
[μία]ν καθάπερ Δελφοῖς, ἄρχοντος
Δαμοχάρεος, βουλευόντων
Ἀντάνδρου, Ἐρασίππου, Εὐαρχίδα.

Ἀριστόνοος Νικοσθένους Κορίνθιος
Ἀπόλλωνι Πυθίω τὸν ὕμνον.

I.

Πυθίαν ἱερόκτιτον
ναίων Δελφίδ' ἀμφὶ πέτραν
αἰεὶ θεσπιόμαντιν ἔ—
δραν, ἰήε Παιάν,

*Απολλων, Κόϊον τε κόρας
Λατοῦς σεμνὸν ἄγαλμα καὶ
Ζηγὸς ὑψίστου, μακάρων
βουλαῖς, ὦ ἰε Παιάν.

II.

*Ενθ' ἀπὸ τριπόδων θεο-
κτήτων, χλωρότομον δάφναν
σεύων, μαντοσύναν ἐποι-
χνεῖς, ἰήε Παιάν,

φρικώεντος ἔξ ἀδύτου
μελλόντων θέμιν εὖσεβῇ
χρησμοῖς εὐφρόγγου τε λύρας
αὐδαῖς, ὦ ἰε Παιάν.

III.

Ἀγνισθεῖς ἐν Τέμπεσιν
βουλαῖς Ζηγνὸς ὑπερόχου,
ἐπεὶ Παλλὰς ἐπεμψε Πυ-
θῶδ(ε), <ι>ῆ Παιάν,

πίεσας Γαῖαν ἀνθοτρόφον
Θέμιν τ(ε) εὐπλόκαμον θεάν
<αῖ> ἐν εὐλιβάνους ἔδρας
ἔχεις, ὦ ἱε Παιάν.

IV.

Ὅθεν Τριτογενῇ προναί-
αν ἐμ μαντείαις ἀ[γ]νοῖς
σέβων ἀθανάτοις ἀμοι-
[β]αῖς, ἱήιε Παιάν,

χάριν παλαιᾶν χαρίτων
τ[ὼν] τότε αἰδίοις ἔχων
μνήμα <ι>ς ὑψίστας ἐφέπεις
τιμά(ι)ς, ὦ ἱε Παιάν.

V.

Δωροῦνται δέ σ(ε) ἀθάνατοι,
Ποσειδῶν ἀγνοῖς δαπέδοις,
Νύμφαι Κωρυκίοισιν ἀν-
τροις, ἱήιε Παιάν.

τριετίσιν φαγαῖς Βρόμος,
σεμνὰ δ(ε) Ἄρτεμιν εὐπνοῖας
κυνῶν ἐμ φυκακαῖς ἔχει(ς)
τόπους, ὦ ἱε Παιάν.

VI.

Ἄλλ' ὦ Παρνασσοῦ γυάλων
εὐδρόσοισι Κασταλίας
να[σ]μοῖς σὺν δέμας ἑξαβρύ-
νων, ἱήιε Παιάν,

χαρεῖς ὕμνοις ἡμετέροις,
ὄλβον ἐξ ὁσίων διδοῖς
ἀεὶ καὶ σῶζων ἐφέπεις
ἡμᾶς, ὦ ἱε Παιάν.

Inscriptions of the Polygonal Wall.—MM. Couve and Bourguet have published in the *Bulletin de corres. hellén.* (1893, pp. 343–409), the inscriptions discovered by M. Haussoullier in 1880 in the polygonal wall. A few of them had since that time been published, but the great majority had still remained unedited. They were all in the polygonal wall behind the portico of the Athenians, and were all acts of manumission of the usual type. In No. 80 there is a strange clause which allows a slave after being freed to smother any child that may have been born to her while a slave in her master's house. There are 109 inscriptions and they are printed in cursive, and the collection is provided with good indexes of proper names.

HYMNS TO APOLLON.—The fragmentary inscribed hymns to Apollon found at the Treasury of the Athenians have created more excitement throughout the cultured and musical world than any of the artistic treasures found, because here for the first time was there given us a long piece of music by which we could form some judgment of the musical genius of the Greeks. The poems in themselves are interesting but the musical notation placed over each syllable is far more important. In these specimens there are two systems of notation, dividing them into two series: a second method of division is furnished by the metre, which is sometimes Glyconian, sometimes Pæo-

nian. The subject is always the same; these are hymns composed for the Delphic feasts, and are all in honor of Apollon. They might be called pæans. There are four large pieces and a number of small fragments.

In the *Bulletin de corresp. hellén.* (1893, pp. 561-83 and pp. 584-610), M. Henri Weil studies the text and M. Théodore Reinach the music of these hymns. M. Reinach says: "Our knowledge of this (*i. e.* Greek) music rested until now on the hymns attributed to Dionysios and Mesomedes, mediocre compositions of the time of the Antonines, poorly transmitted. To these documents, long known, the palæographic and epigraphic discoveries of our century had added but little; namely, the instrumental exercises of the anonymous of Beller-mann, the short musical inscription of Tralles and the insignificant fragment of a chorus in the *Orestes* of Euripides, published by M. Wessely. The discovery of Delphi has quite another importance. Without counting a dozen fragments, more or less long, it gives us finally a great song of the III or II century B. C., which from its length, its poetic and musical value and the authenticity of its text will henceforth take the first place among the remains of the music of the Greeks." This song consists in its present state, of two large slabs marked A and B, of which A is badly mutilated. The end of the hymn must have been given on a third slab which has disappeared.

In fragment A, after praising the son of Zeus who reveals his divine word to all mortals, the poet relates how the young god conquered the prophetic tripod by piercing with his arrows the dragon, and he compares to the legendary monster the impious and sacrilegious Gauls whom Apollon had repulsed from his sanctuary. The Muses are invited to leave Helikon to sing of their brother, the golden haired god, who inhabits Parnassos and goes with the women of Delphi to the Kastalian fountain. The hymn was apparently written to be sung, with accompaniment of flute and cithara, in a procession toward the Kastalian fountain. The hymn must have been composed not long after 278 B. C., when the Gauls attempted to plunder Delphi. The poet, whose name is broken off, is called an Athenian, and the close of the hymn speaks of the pilgrims sent from Attika. Perhaps it was a thank-hymn from Athens after the escape from the Gallic invasion.

The signs employed for the musical notation are the letters of the Ionian alphabet, straight or reversed. The note was written above the corresponding syllable of the text, but irregularly. A repeated sound was not re-inscribed. Of the fourteen signs employed twelve occur

in Alypius' diagram of the chromatic Phygian trope or tone, which is therefore, the tone used for the hymn, the other two having the same value in all tones. The diatonic part of the hymn is written in a mode whose typical scale is the octave of the Doric mode, the national Greek harmony par excellence. According to modern musical custom this scale is really that of ut minor. What difference there is between the Dorian scale that starts with Sol, and the hypo-Dorian which starts with ut, on the one hand, and our minor scale, on the other, is carefully explained by M. Reinach, who is probably the best modern authority on Greek music.

The hymn is an interesting example of the mixture of styles that characterizes the post-classical period, passing backwards and forwards between diatonic and chromatic passages.

It is only necessary to add, in connection with a second group of fragments, that in them a different system of notation with archaic letters is used which had been hitherto supposed to be used exclusively for instrumental music. It appears that for quite a while both were used as vocal signs, and only at a late period was one of the systems used exclusively for instrumental music.

The Delphic hymn to Apollon was sung thrice at Athens in the first two weeks of April in the public concerts of the Society of Lovers of Music, by the same quartet which had already given it on March 29th before the royal family and a crowded audience at the French Archæological School. The Parnassus Society is preparing another concert, at which the pieces of ancient music ascribed to Dionysios and Mesomedes shall be sung by a chorus, accompanied by an orchestra. The hymn has also been rendered in Paris with great success and on a thoroughly scientific basis, under the supervision of M. Theodore Reinach, with the assistance of the best musical talent of Paris and the aid of M. Ambroise Thomas. It is also about to be performed in London.

EPIDAUROS.—STADION.—At Epidaurus the stadion is now being excavated, and the first trenchings have brought to light several rows of marble seats in perfect preservation, and resembling those of the celebrated theatre in the same place. It would seem that beneath the enormous mass of superincumbent earth and rubbish, the accumulation of many centuries, a considerable portion of the original structure has been preserved, and there are great hopes of discovering the *aphesis*, the *terma*, and the *stelæ* that marked the starting-point, as also the *meta* and the direction followed by the racers.—*Athen.*, May 19.

ERAS IN INSCRIPTIONS.—In a recent study of the dated inscriptions of Epidaurus, published by Kavvadias, M. Homolle discusses the ques-

tion of the diversity of eras employed in them. Kavvadias maintains that several eras were used in the imperial period at Epidauros: the era of Hadrian, an unknown era, and local eras. But in M. Homolle's opinion there is but one era, that of Hadrian, and the inscriptions run from 128 to 355 A. D., instead of covering only some thirty years.—*Bull. corr. hellen.*, 1893, p. 622.

ERETRIA.—DISCOVERY OF TEMPLE OF DIONYSOS AND OTHER STRUCTURES.—Prof. Richardson, director of the American School at Athens, writes to the N. Y. *Independent* of June 14, a letter dated, Eretria, May 20, from which we take the following extracts:

Last winter in a short visit to Eretria I had made a memorandum of five things to be done if I were able to begin work there in the spring, and the first on the list was to dig some trenches in the rear of the theater which was excavated by us three years ago. It had seemed to me ever since I was here at that time (an opinion shared by others) that there would be likely to be a temple of Dionysos somewhere near the theater. In some excavations, as at Olympia and Delphi, Pausanias has been an invaluable guide; but as neither he nor any other writer has told us anything of the topography of Eretria, calculation was here reduced to more or less prudent guessing. In this case our guess was right. We did not lose an hour's time when we got our men together and began work.

In the course of our first forenoon we struck a broad platform of a building only about sixty feet from the theater. In the course of the day we ascertained that this was forty feet broad. The next day we discovered its length, which was about seventy feet. This platform was very near the surface, and was very accessible. When the whole platform was swept off, it exhibited its three massive layers, making a total of four and one-half feet of depth. Probably few will be disposed to dispute the name which we provisionally give the building, viz., the Temple of Dionysos. That is what we looked for, and we seem to have found it. Unfortunately we found no inscription that would make this sure. All the architectural members of the temple, such as columns and entablature and one or more layers of the platform, have disappeared. The temples of antiquity were always the quarries of later generations, and this temple probably lay long on the surface inviting to plunder.

During our second week we have cleared the ground to the east of the temple, laying bare what seems to be a great altar. This lies in the rear of the stage building. Then digging from the north side of the temple we have discovered a stoa of considerable extent leading out of the west parados of the theater. Perhaps our most valuable

discoveries from a scientific point of view are being made in this west parodos, which had hitherto been neglected. Of this it is too early to speak.

Simultaneously with the work on and around the temple we have excavated a part of a street not far away where the foundation walls protruded from the ground. We have also uncovered several water conduits and an interesting series of four large stone tubs, from one to the other of which water used to run. These are numbered Γ. Δ. Ε. Δ., and we have christened it "the city laundry."

A well-known shaft was found adjacent to the south wall of the temple. This was cleared very slowly. After going down ten feet it opened into a lateral passage which was explored to a great distance. The fact that there are carefully cut holes for feet in two of its sides indicate that people went down into it.

We have also made the first serious excavations yet undertaken with a view to locating the temple of Artemis Amarysia, the most famous temple of the Eretrians, a mile outside their city wall. We failed, finding only walls of a later time. We have simplified the problem for our successors by eliminating one of the possibilities. No one need dig again at the foot of Kotroni.

Another interesting work has been the opening of a large tumulus like that on the plain of Marathon, containing the bones of the Athenians who fell in the battle. After cutting three roads into it, and going down in the center to a depth of twenty-five feet, carrying out the earth with wheelbarrows, we were forced to the melancholy conclusion that somebody had been there before us. As the mound looked practically intact from the outside, and as not even the oldest inhabitants know anything of these previous excavations, our predecessors may have done their work many years ago, and covered its traces quite effectually. We find to our surprise that the central core of the mound is a stone tower twenty feet high and fifteen feet square. Our predecessors had broken away over half of this on the southern side, until they came to the bottom, where they appear to have found the tomb which they sought. They must have worked from the top with crow-bars and baskets.

In the course of our work about the temple we have found some objects of minor importance, among which a pretty statuette head of Aphrodite in marble holds the first place.

I may add, in closing, that one result of our work is that we probably now know where to dig with good results for more knowledge of Eretria.

KALAURIA.—The Swedish archæologist, M. Wide, has applied to the Greek Government for permission to excavate the Temple of Poseidon at Kalauria.—*Acad.*, May 26.

LAKE KOPAÏS AND ISLAND OF GHA (BOIOTIA). — MYKENÆAN REMAINS.—A supplementary note to Perrot's first volume on Greece, published a few months since, gives the following information :

"M. de Ridder, a member of the French School at Athens, carried on in June, 1893, some excavations in the island of Gha, which will be fully reported in the *Bulletin de correspondance hellénique*. The excavations have brought to light a large building situated in the northern part of the island, composed of two wings that are joined at right angles. The first building runs from east to west, bending slightly southward : it is flush with the wall of the island. At that point this wall is two metres thick ; but elsewhere it reaches a thickness of 5.⁶⁰ met. The second structure forms an elbow to the east of the first and extends southward. The length of each wing is about 60 met. and the width 10 met. Both end, one at the west and the other at the south, in two large towers placed at a lower level. In the interior the arrangement in long corridors, vestibules and dwelling-rooms, recalls that of the palace of Tiryns. The sills are formed of similar large moulded slabs. The bronze hinges are also analogous. The flooring is made of the same kind of coating of lime ; and the walls rise to the same height. Finally, there are evident traces of fire. Great causeways join this palace to the doorway opened up in the south wall of the island. Numerous fragments of rude pottery concur in proving the island to have had a permanent population."

The enormous constructions around the lake belong to the earliest period of Greek history. More than a thousand years B. C. great efforts were made to dyke the unhealthy lake and make its surroundings habitable. Ancient writers inform us that at a very early date Kopaïs was confined and the land cultivated by the Minyans, an agricultural people that came from Thessaly to colonize Orchomenos. Both M. Kampanis in the *Bull. corr. hellén.*, and Prof. Curtius in a paper before the Berlin Academy, have called attention to the ruins.

We cannot give space to an analysis of the two interesting papers by M. Kampanis in the *Bulletin* on the hydraulic works on Lake Kopaïs, in which he not only gives a practical study of existing works, but gives an historical sketch of their different phases, distinguishing the historic from the prehistoric works.

We read in the *Bull. corr. hellén.*, 1893, p. 631 : "M. de Ridder, with the authorization of the English company of Lake Kopaïs, has explored the akropolis, which is one of the largest and best preserved known,

more extensive than those of Mykenai and Tiryns. He has excavated in the ruins of monuments within the walls, discovering constructions that resemble a palace and a long building in the form of a portico. He has drawn up plans, which will be published together with those of the enclosing wall, long since prepared by M. Lallier, director of the work of the lake. Some fragments of painted stucco and of Mykenæan pottery have been found on the site.

Dr. Noack, of the German Institute, also investigated in 1893 the region of the Kopaïs, seeking everywhere in the interior and around the borders of the lake for remains of cities or fortifications. He has tested by his own observations, and admits in their general aspect and in most of their details the results of M. Kampanis' study of the hydraulic works of Kopaïs. He found around the lake a number of cities or fortresses which seemed to him to have for their main object the defense of the canals, dykes and exits which guaranteed safety and wealth to the Kopaïs plain. He has drawn up the plans of all the wall circuits, including that of Gha. According to him, this very important city bore anciently the name *Arnê*, and was a Minyan city.

KYZIKOS. — THE WORKS OF ANTONIA TRYPHAÏNA. — Several papers have recently had as their subject the inscription commemorating the works undertaken by Antonia Tryphaina at Kyzikos. Antonia Tryphaina, married to Cotys, King of Thrace, and cousin of the Emperor Caligula, came of an illustrious family of Asia Minor that had long been devoted to the Roman cause, and which had received in recompense the Kingdoms first of Pontus and the Bosphorus, and afterwards of Thrace, Pontus and Minor Armenia. The position of Kyzikos at the head of the three routes penetrating into Asia Minor, made it worth while for Antonia Tryphaina to put forth great efforts to Romanize it. This she did by making this city her residence and undertaking there a great series of public works to develop its commercial importance. The inscription in question, first published in 1891 in the *Mittheil. Athen.*, was republished in 1893 with a commentary by André Joubin, in the *Revue des Etudes Grecques* (1893, p. 8, sq.), where there also afterwards appeared supplementary notes by Joubin (1894, p. 46) and Theodore Reinach (1894, p. 58). According to it: (1) Tryphaina consecrates to the emperor (evidently Caligula) the reparation of the city; and (2) she re-opens the strait which had previously been closed for fear of war. The date is 37-41 A. D. M. Joubin concludes that the narrow strait that anciently divided the mainland of Asia from the rocky island on which Kyzikos was built, was filled up with rocks at the time of the wars in Thrace between A. D. 21 and 26. The filling up of the strait closed the port and necessitated the dividing of an

attacking fleet, as Kyzikos was built on two ports, separated by the strait.

It is probable that the strait remained closed for about a dozen years, and commerce suffered in consequence, until the works carried on by Tryphaina. In charge of them was the engineer Baccbios, of whom an inscription has been found at Kyzikos, and purchased, as well as that of Tryphaina, by the Museum of Constantinople. It reads:

Βάκβιος Ἀρτέμνος τοῦ Βακχίου
γενόμενος ἐπὶ τῆς ὀρυχῆς τῶν
λιμένων καὶ τῆς λίμνης καὶ τῶν
διωρύγων καὶ τῆς ἐποικοδομίας
τῶν προκειμένων χωμ[ά]των καὶ
ἐπ[α]υθηθεὶς καὶ στεφανωθείς ὑπὸ τῆς
Βουλ[ῆ]ς καὶ τοῦ δήμου,
Ποσειδῶνι ἀ[νέ]θηκεν.

It is a dedication to Poseidon, contemporary with the decree in honor of Tryphaina, near which it was found, and it mentions more in detail the works alluded to in the decree. He cleared (*ὀρυγή*) the ports, the marsh and the canals of sand and built, or rather rebuilt, two protecting moles, one in front of each port. The two ports (*λίμνες*)—one on the east and the other on the west of the sandy isthmus—were joined by a canal (*εὐρείπων* and *διωρύγων*) on two branches, which met, toward the centre, in a rectangular marsh (*λίμνη*), situated south of the city.

M. Reinach's article, entitled "*Ile ou Presqu'île*," satisfactorily solves the question whether Kyzikos was an island or a peninsula. Ancient authors contradict one another. Pseudo-Skylax, Pomponius Mela, Stephen of Byzantium make it a peninsula. Apollonius Rhodius, Strabo, Pliny, Frontinus call it an island. Ælius Aristides calls it both. The scholia to Apollonius state that it was at first an island and became afterwards, artificially, a peninsula. Among modern writers, Mannert is alone of the opinion that Kyzikos was originally a peninsula. The term *διώρυξ* in the inscription of Baccbios clears up the difficulty, for it can only mean a canal dug by the hand of man. Originally, therefore, Kyzikos was a peninsula, and thus it was at the time of Pseudo-Skylax, in the middle of the fourth century. Shortly after the inhabitants pierced the isthmus, and at the same time, in order to retain communication with the mainland, they built two bridges across the two branches of the canal. The language of Strabo shows that these works were still intact. Then came, under Tiberius,

the filling in of the canal, which was, after a while, reopened by Antonia Tryphaina.

LIVADIA (BOIOTIA).—ORACLE OF TROPHONIOS.—Two Greek students from Livadia, in the ancient Boiotia, believe they have discovered the site of the oracle of Trophonios. North of Livadia, opposite the stream of Herkyna, is an unnamed hill, on the east bounded by the Herkyna, on the west by the brook Probation, on the north by the hill of Laphys-tion, and on the south by the town. On the western side of this hill lies a little church of St. Sophia. Beneath it, however, is a grotto-like crypt, 4·80 metres deep, a depth that would correspond pretty well to Pausanias's eight ells. Pausanias, from his own account (ix. 39, 10), had not measured the depth himself. This quite small grotto is not natural, but artificial, and it answers to the description of Pausanias. On the south side of the grotto are steps which lead to a throne with three hollow seats. Pausanias says it was the seat of Mnemosyne. Close by one sees other seats placed in a winding line which reaches to the river; but opposite the stream are niches and a construction designed for ablutions. On the east of the grotto is a cliff shaped like a bank (the *κρίβανος* of Pausanias), upon which are to be seen niches and other traces of ornament. A little further off is a natural hole. Can it be the concealed entrance? It is stopped, and when it is knocked the sound is dull. The northern side lies somewhat higher than the others, and is connected with the eastern by a step hewn in the rock and a door of which only a fourth part is preserved. So far as the report goes of the supposed discovery, the Inspector of Antiquities, to whom application was made, thought it reasonable to make further investigation, and grant the means necessary for continuing the examination. Schliemann, it may be remembered, occupied himself some years in searching for the cave, and made some excavations which led to no result. In 1839 Stephani conjectured that the oracle was under the church of St. Sophia, and Hettner opposed the idea.—*Athenæum*, May 5.

ORCHOMENOS.—M. de Ridder is said, in the *Bull. de corr. hellén.* (1893, p. 631), to have made some very interesting discoveries at Orchomenos. In excavating in the lower part of the city he discovered a temple of Asklepios (?) and a necropolis where he collected large numbers of Corinthian aryballoi, proto-Corinthian vases and fragments of bronze, among which were several stamped plaques of archaic style, decorated with geometric ornamentation and animals, such as a sphinx, a horse, *etc.*

PHOKIS (SEE ALSO DELPHI).—While the excavations at Delphi are being carried on Phokis will be thoroughly explored. M. Ardaillon

made a beginning last year in the region of Chrysso and Kirrha, with the assistance of M. Convert; all ancient ruins will be drawn and photographed, and the network of roads will be studied with especial care. At the same time the geology, flora and fauna will be studied. A meteorological station has already been organized at Delphi, and it is proposed to study the part that may have been taken in the creation of the myths and legends by atmospheric phenomena, nature and the products of the soil.

RHAMNOUS.—STATUE OF NEMESIS.—In the *Jahrbuch Arch. Inst.* (1894, pp. 1-22), L. Pallat writes of *The Basis of the Nemesis at Rhamnus* (pls. 1-7; one cut). Leake, *Demi of Attica* (*Topography of Athens*, vol. II.), p. 109 (ed. 1841), mentions "fragments of figures, in high relief," "found among the ruins of the temple of Nemesis." He adds that they were about a foot high, and suggests that they formed a part of the relief of the basis of the statue. In 1890 fragments of figures in high relief were found at the same place by the Greek Archaeological Society. Some of them were published by the finder, Mr. Stais (Εφ. Ἀρχ., 1891, pl. 8, 9). They are now in the National Museum at Athens (Nos. 203-214). All the fragments, forty in number, are here published and discussed. They are of Parian marble, work of the fifth century, B. C. From the fragments and the description of Pausanias (i. 33, 7, 8), the relief of the basis is restored. On the front of the basis was Leda conducting Helen to her mother Nemesis. Beside this central group are Tyndareus and the Dioskouroi at the left, Agamemnon, Menelaos and Pyrrhos at the right. These figures were probably made known by inscriptions. On one side of the basis was a man with a horse, on the other a horseman and a squire. The composition is after the manner of Pheidias, but the details, especially in the drapery, show an increase of refinement (*verfeinerung*). The work belongs to the school of Pheidias, but not to Pheidias himself. As the basis and the statue of Nemesis were doubtless by the same artist, the statement (Zenob. v. 82, Pliny, *N. H.*, xxxvi. 17), that the statue was by Agorakritos, deserves credence rather than that of Pausanias, who ascribes it to Pheidias.

SAMOTHRAKE.—In the *Mith. Athen.*, 1894, pp. 132-136, M. Fränkel republishes with emendations *The Hippomedon-Inscription from Samothrake* published by O. Kern, *Mith.*, 1893, p. 348 sqq. Fortifications at Samothrake were evidently nearly completed. The inhabitants granted Hippomedon the right of giving to others freedom from import duties and the privilege of exporting grain. The general prohibition of grain-export at that time appears to have been due to attacks of pirates and consequent failure of agriculture.

O. Kern contributes to the *Mith. Athen.* (1893, pp. 336-384), an article "from Samothrake," giving the results of a visit to the island in July, 1892. He presupposes an acquaintance with the Austrian *Untersuchungen auf Samothrake* and with Rubensohn's *Mysterienheiligtümer*. Investigation of the hill on which the Nike stood is still imperfect, further excavations being needed. A sketch of the walls and substructions at that point is given. Thirty-nine inscriptions are described, of which thirty-one are published, nearly half being new. Nearly all are due to Mr. Phardys, the local physician. The most important are:—1) an inscription in honour of the Lacedæmonian Hippomedon, son of Agesilaos, general of king Ptolemaeus III. on the Hellespont and in Thrace, confirming the report of Telos (Heuse, *Teletis reliquiae*, p. 16, 2). Hippomedon had cared for the security of Samothrake, perhaps against the Macedonians. The date must be between 239 and 223 B. C. 2) The inscription Rubensohn, *Mysterienheiligtümer*, p. 227. Cuts represent the front and back of the stone as well as two coins of Kyzikos. The round building on the coins (and in part) on the stone, may have been a sort of city coat of arms of Kyzikos. 3) The stone of Demokles (Rubensohn, p. 160 ff. and elsewhere) also represented by a cut. The lists of *mystai* on this stone were inscribed at different dates. 4) A brief inscription (No. 27), interesting as affording the first proof of the worship of Aphrodite at Samothrake. At the foot of the hill Hagios Ilias a number of terracottas, marble statuettes, etc., show the former existence of a shrine of some sort. These are mostly of poor workmanship and comparatively late date. One terracotta of a goddess with polos, head cloth, and necklace, holding a bird, is ascribed by Brückner to the sixth century B. C. Two roughly-worked reliefs, representing one a man and two women, the other two women, are described. Fragments of similar reliefs were seen. A relief of a fish recalls the sacred fish Pompilos, and an ithyphallic Hermes reminds the writer of Herodotus II. 51.

In the *Mith. Athen.*, 1893, pp. 385-394, F. Hiller von Gaertringen publishes six inscriptions relating to the *Samothrakian gods in Rhodos and Karpaihos*. Three of these are new. No. 2, from the city of Rhodos, not earlier than the first century B. C. is a fragmentary list of priests of the Samothrakian gods. No. 6, from Tristomo, Karpaihos, is a longer list of priests. No. 3, found near the city of Rhodos, reads [τὸ κοι]νον. Σαμοθραικιαστῶν Σωτηριαστῶν Ἀριστοβουλιαστῶν Ἀπολλωνιαστῶν Θεαι(αι)δητέων Ἀστυμηδέων.

STRATOS.—M. Joubin promises to publish shortly a report on the excavations which he carried on at Stratos between April and July, 1892. In the meantime he publishes in the *Bull. corr. hellén.* (1893,

p. 445) the inscriptions which he discovered there. No. 1 is a bronze plaque whose inscription engraved with the point contains (a) a decree of the city of Stratos conferring proxeny and privileges on Lysias, son of Kallias, a Megarian, his two sons and their descendants; (b) an additional article adopted on the proposal of Bolarchos of Phoitia adding *ateia* to the above advantages. The alphabet is the Akarnanian, and it is archaic. As Corinthian influence was paramount in Akarnania up to the middle of the fifth century, when the influence of Athens was introduced, and as it is seen here, the date of the inscription cannot be earlier than the close of the fifth century. The dialect is Dorian. 2. Decree of proxeny, III cent. 3. List of names, IV cent. 4. Block from altar with manumission of slave in form of sale to divinity, II cent. This divinity is Zeus, and this fact is important as being the only proof that the temple of Stratos was sacred to Zeus.

TEGEA.—EXCAVATIONS PROPOSED BY THE FRENCH SCHOOL.—The good news has come that the French School is about to undertake excavations at Tegea with the object of thoroughly uncovering the temple of Athena Alea, which was certainly one of the most important buildings of the Peloponnesos. Of course it is hoped that sculptures by Scopas may come to light. The Greek Minister of Public Instruction has appointed a Committee which is to study the site, the location of the excavations proposed by the French School, and to estimate the value of the property to be expropriated.

THORIKOS.—An entire city has been found at Thorikos near Laurion, destroyed and buried by some convulsion of nature unknown to history. It appears to be not a Greek city of the historic period, but of the prehistoric or Mykenæan age. At least this is to be inferred from the objects discovered.

At the very beginning of the work of excavation two royal tumuli were opened on one side and the ruins of a palace on the other. The tumuli are about 250 metres apart. One, of circular form, is situated some thirty metres below the palace which is built on the rock of Thoriko which rises above the surrounding plain. The other tumulus remarkable for its helicoidal shape, was in so ruinous a condition that it has been up to the present impossible to entirely clear it. These tombs had both been ransacked at some previous period.

The following is the list of the objects found by the Greek Archæological Society at whose expense and under whose direction the excavations were undertaken. Two fibulae, one of gold the other of amber: a gold ring: an ivory comb, beautifully worked, to fasten the hair: an ivory needle: some ten pearls of glass, jasper, etc: two stone arrows of very fine workmanship: an ivory quiver: gold myrtle and

laurel leaves; a leaden disk decorated with colored concentric rings. Six similar disks have been found in other tombs and the archæologist in charge believes them to be money. Among the finds is a perfectly preserved skeleton, which is important on account of the great rarity of skeletons of this early date and their usual poor preservation. There were also fragments of statues of Zeus and Apollo, a marble vase and fragments of domestic vases mingled with bones of animals and birds and with shells. It is concluded that these are all remains of the funerary repast.—*Chron. des Arts*, 1893, No. 35, from the *Messenger d'Athènes*.

ITALY.

PREHISTORIC AND CLASSIC ANTIQUITIES.

USE OF RINGS IN ANTIQUITY AND THE EARLY MIDDLE AGES.—M. Deloche, whose articles on Merovingian seals and rings have been running through the *Revue Archéologique* like a perennial brook for the last ten years and more, took a broader view of his subject in a memoir with the above title read before the *Acad. des Inscriptions*. The ring was at first reserved for the use of those who had distinguished themselves by some warlike exploit or rendered the State some service. It afterwards became one of the privileges of the patricians, *equites* and magistrates. Originally there were only iron rings; the ambassadors of the Republic alone wore in public gold rings. Later various metals were employed to distinguish the different orders of the State: the senators and knights alone had the right to gold rings; freedmen wore silver rings and the plebs iron rings. As early as the third century the freedmen claimed gold rings, and the Constitutions of Justinian gave them this right. As for the slaves, during the entire period of Roman dominion they were restricted to iron rings.—*Revue Arch.*, 1894, II, 107.

GOLD IN MOSAIC WORK.—M. Eugène Müntz, in a recent study on mosaic technique, stated that no cubes of gilt glass had been found in mosaics earlier than the third century A. D. In a January meeting of the *Soc. des Antiquaires*, M. Heron de Villefosse exhibited such a mosaic cube from the collection of Count d'Herrison, which dates from the second century.—*Bull. Soc. des Antiquaires*, 1893, p. 76.

ALTAVILLA SILENTINA (LUCANIA).—Two tombs have been opened in the territory of Altavilla Silentina, facing north and south, about one metre apart. Both are built with equal solidity and regularity, but one of them is richly decorated while the other is perfectly plain; and many objects were found in the first and none in the second.

The richest tomb is rectangular and with a high gable top: it is constructed of six slabs of tufa and measures 1.95 m. long, 1 m. wide, 0.92 m. high, beside 0.50 m. to the top of the gable. The inside of the slabs is covered with a very fine plaster, on which are painted figured scenes in outline and in monotone masses. The E. side has a contest of two warriors. They are naked and wear the *galea*, *cingulum* and *cnemides* and are armed with shield and spear (Eteokles and Polyneikes?): between them lies a pomegranate, and to one side stands a female figure (Antigone?) resting on her right leg. The warriors are painted in red body color with black outlines; the female figure is outlined in black with but little shading of the drapery. On the opposite long slab is a quadriga driven by a winged Nikê, before which rises the column of the *meta*. All the figures are outlined in black with a little shading of the same color. The design is accurate, free and elegant; it recalls the good period of Greek art. At the N. end are two animals, a lion attacking an ibis, the former in yellowish monochrome, the latter in black outline. In the gable above is a cock in outline and reddish body color, pecking at a bunch of black grapes. On the opposite end there remain merely traces of a scene representing a warrior approached by a female figure presenting him a patera with her left hand. This woman, like the one on the E. side, is robed in a long chiton and himation. The figures that are delicately sketched in black are especially charming. The work belongs to the third century B. C. and is certainly Greek. Several Lucanian painted vases were found in the tomb.—*Not. d. Scavi*, 1893, pp. 423–27.

BENEVENTO.—At Benevento, according to a recent communication made to the Royal Academy of the Lincei, the fragment of an Egyptian statue in granite with hieroglyphics, and a piece of granite obelisk also inscribed with hieroglyphics, have been disinterred. The statue, according to the examination made by Prof. E. Schiaparelli, of Florence, must be referred to the end of the reign of Rameses II., about 1340 B. C., and may have been brought from Egypt to adorn the temple of Isis at Beneventum—a temple which is mentioned in the inscriptions of the obelisks, and which, like the temple of Isis in the Campus Martius at Rome, was adorned with Egyptian statues of various dates. The fragment of obelisk fortunately fills up a gap in one of the known obelisks of Benevento, and enables us plausibly to supply other gaps on the same obelisk. From these inscriptions it would appear that both these obelisks were transported from Egypt; but they are of late workmanship, having been made for the temple of Isis at Beneventum, which was built by Lucilius Rufus by order of Domitian.—*Athenæum*, Feb. 3, 1894.

BOLOGNA.—M. Geffroy communicated to the *Acad. des Inscriptions* during the past summer a paper on the subject of the new excavations undertaken in the vicinity of Bologna, which seem likely to furnish decisive information on some of the *étapes* of the Etruscan people in Italy. A funerary stele recently found at Novilara (*q. v.* in this issue, p. 323, and pp. 279-81 of vol. VIII of JOURNAL), near Pesaro, has the representation of a wild beast hunt with a Sabellian or Illyrian inscription in twelve lines, which is to be published by the *Accademia dei Lincei*.—*Revue Arch.*, 1894, I, p. 106.

CASTEL TROSINO.—MAGNIFICENT BARBARIC OR LOMBARD ANTIQUITIES.—In digging on some land belonging to the parish church of the village of Castel Trosino, about six kilometres from Ascoli Piceno, some tombs came accidentally to light, the contents of which soon began to attract the attention of the neighbors. On being informed of the occurrence, the Minister of Public Instruction ordered a regular exploration of the place to be undertaken under the direction of Prof. Brizio, of the University of Bologna. The result of his researches has been really splendid, and when fully made known to the public will awaken the greatest interest. The tombs, of which about 150 have been already explored, belong to a post-Roman necropolis, and their contents far surpass in abundance and richness all similar discoveries hitherto made on Italian soil. They consist for the most part of gold and silver ornaments, such as crosses (some of which bear inscriptions), brooches, clasps, circular and broad-headed nails, sheaths for knives and daggers, necklaces formed of mounted Byzantine coins, &c. To these must be added arms, fragments of breastplates and other armor, and an important series of fine articles in glass. The style of the whole of this hoard is distinctly Lombardic; small crosses in gold were worn sewn on the dress at that period among that warrior people. But the position of Castel Trosino corresponds to no Lombard duchy known to us, and the study of these precious remains, which have been brought to Rome and placed in the new museum of the Villa di Papa Giulio, may result in throwing light not only on the history of barbaric art, but also on that of the settlements of the Lombards in the peninsula. Another small necropolis belonging to the same period, but of lesser importance, has been discovered near Borgo Masino, in the Province of Turin. Here also, together with swords, lances, bits and horse trappings in bronze, were collected gold crosses, and earrings embellished with filigree work of Lombardic style.—F. HALBHERR in *Athenæum*, Feb. 17, 1894.

CASTELLAZZO DI FONTANELLATO (NEAR PARMA).—PREHISTORIC CITY.—Fresh contributions to the study of the prehistoric settlements of

Northern Italy has been furnished by the excavations of Prof. Pigorini in the terramara of Castellazzo di Fontanellato, near Parma. We are now well-nigh in possession of a complete plan of a prehistoric city, which, from the results of partial discoveries recently made, would appear to have been quadrilateral and oriented, having its sides more or less modified in direction in order to allow the water to run into the fosse that surrounded it. The interior of the settlement appears to have been really traversed from north to south by a *decumanus*, a particular which would confirm the conjecture of Prof. Chierici that in the terramare we have the prototypes of the first Italic cities. Parallel to the *decumanus*, and adjoining the eastern rampart, was discovered a large rectangular mound of earth, 120 metres in length and 60 in width, surrounded on all sides by a ditch 30 metres wide, just like the ditch running round the whole terramara. Spanning the western fosse are the remains of a bridge giving access from this raised platform to the centre of the city, and abutting on to the *decumanus*. The existence of this raised mound, which in the Castellazzo terramara is found for the first time, arouses the greatest interest. Prof. Pigorini is inclined to think it may be the temple or citadel, namely, a kind of arx or acropolis. Another important discovery has been made in one of the two necropolises—in that which lies at the southeast angle outside the enclosure, and is in the form of a square. The necropolis, like the city, is surrounded by a ditch and is formed of ground raised by means of piles. The city of the dead would appear in those times (if this circumstance is confirmed by other burial-grounds of the lake-dwellers) to have been an exact imitation of the city of the living, just as the tombs of the remotest ages of Greek and Italian civilization were exact imitations of the huts or dwellings of the living. This burial-place, as well as the other on the west side, which has been so far but little explored, was used for cremated bodies. Near the first is a piece of ground baked by the fire, which was evidently used as an *ustrinum*.—FREDERICK HALBHERR in *Athenæum*, Feb. 17, 1894.

COMO.—TRANSFER OF THE MUSEUM.—The Museo Civico of Como has been removed to far better quarters, in the historically famous Palazzo Giovo, which will also receive the Notarial Archives. The first two numbers of the catalogues of the museum have appeared, including the pre-Roman and Roman collections. The *Revista Archeologica di Como* has begun in No. 35 the publication of the Roman and Christian marbles in the museum.—*Archivio Stor. Lombardo*, xx, 2, p. 561.

FLORENCE.—Prof. Milani has recently drawn attention, in connection with the recent excavations in Florence, to the similarities between the forums of Florence and Pompeii. In Florence as at

Pompeii the Baths are placed behind the Capitolium; the position of the temple of Jupiter Capitolinus, with its triple cella, corresponds, though that in Florence is more sumptuous, as are also its Baths, which were built twice over on the ruins of a Roman house of the Republican period (II or I cent. B. C.). Furthermore, the rectangular well recently discovered in Florence near the woman's bath, with its relief representing the river Arno, corresponds to the rectangular well of the small baths of Pompeii, placed between the tepidarium of the men and the calidarium of the women, and it reminds also of the cistern of the same baths.—*Not. d. Scavi*, 1893, p. 493.

GRADISCA (VENETIA).—Near the village of Gradisca, where the torrent Cosa joins the Tagliamento, a Roman fort has been recently found, of trapezoidal shape, with four entrances, one on each side. It is built up entirely of earth, and appears to be on the site of a very ancient centre of population of the Veneto-Illyrian race. This is made the more probable from the prehistoric remains that have here come to light, and which appear to have originally come from early tombs torn up in the course of the construction of this fort.—*Not. d. Scavi*, 1893, p. 487.

MILAN.—ADDITIONS TO THE MUSEUM.—Dr. Giulio Carotti publishes in the *Archivio Storico Lombardo* (xx, 2, pp. 442-496) a report on the antiquities and works of art that were added in 1892 to the Brera Museum, now called the *Museo patrio di Archeologia di Milano*.

Prehistoric.—In May, 1892, the sale of the collection belonging to Amilcare Ancona took place at Milan, and a considerable number of objects were purchased for the museum. Among them were the following prehistoric pieces: (1) A small terracotta urn from Golasecca, still containing a broken bronze fibula and fragments of iron objects. (2) A well-preserved small bronze scythe-shaped hatchet. (3) A bronze box or *cista a cordoni*, with intermediate rows of raised dots, in imperfect condition but important. (4) A long bronze sword from the neighborhood of Codogno, belonging to the end of the bronze age. Each side of the blade is divided in two oblong sections by a cylindrical raised line. (5) A bronze sword of fleur-de-lys shape from Casalbuttano in the province of Cremona. It belongs to the bronze age and is remarkable for the thickness of the blade. (6) Ten bronze *paalstabs* found near Lodi, some entire, some reduced in size by use in the bronze age itself. (7) Two fine bronze torques in perfect preservation, found with the *paalstabs* mentioned above. (8) Four *paalstabs* from Modena and Rome; six small poniards from Verona. (9) Two bronze situlas or pails found at Vhò (Cremona).

Greco-Italic.—A series of Greco-Italian statuettes, heads and two terracotta cups from Lucania and Apulia. The thirteen statuettes are of the free Tanagra type, but undoubtedly of South Italian workmanship. One graceful female statuette, 16 cent. high, preserves black color in the hair, red on the face and blue on the himation. There are also: three standing females with veiled heads; a youth leaning on a column; cupid holding a dove; an Aphrodite (?); four seated females of varied types. The nine heads are: four of Dionysos—one archaic in type; an Athena; two females with a high *stephanê*; a grandiose helmeted male head; and another beardless head crowned with flowers. (2) A red-figured Kylix with a seated satyr holding a ryton in his left and stretching his right hand toward a nude woman with a cloth wrapped about her head, who is bending over the satyr: from the Ancona collection. (3) Patera from Canosa. A black ground decorated in red, brown and white, with fish, shells, etc.: from the Ancona collection.

Italic and Etruscan.—(1) The fine series of twenty-six helmets, two Greek and the rest Italic, which Sig. Ancona had collected, was dispersed at the sale. Two fine specimens, Nos. 13 and 15 of the catalogue, have been given to the museum. No. 15 is a bronze helmet with round calotte, having a decorated border that widens slightly in front like a narrow visor. It has two *ganciai*: from Sotassa. No. 13 is of bronze and has a high calotte, terminating in a button with pearl ornament. Below it has a border with geometric lines and a twisted rope pattern: from Orvieto. (3) Fragments of a bronze brazier with elegant palmette decoration and dragon's feet, as well as a decoration of raised pearls. A large bronze cup with raised pearl ornament: both from the Ancona sale; found near Chiuse. (3) Three Etruscan cinerary terracotta urns: the largest belongs to the Greco-Etruscan style (c. 300 B. C.), and on its cover half reclines a beautiful female figure. She holds a leaf-shaped fan in her right hand and her head is encircled with a *stephanê*. There remain traces of color. The bas-relief on the front represents the fratricidal combat of Eteokles and Polynikes. The second urn bears the figure of a youth, and the third that of a young woman: on the former are traces of color and on the latter only the white ground for it.

Roman.—(1) Two cippi whose inscriptions are published by Mommsen in the *C. I. L.*, Nos. 5750 and 5701, and described as in Monza. (2) A marble Roman composite capital with a decoration sacred to Neptune, of dolphins, tridents and shells, beside the floral ornament. (3) A marble decorative fragment. (4) A collection of Roman antiquities from a necropolis found in 1883 in the Royal Park,

with interments dating between the first and the fourth century of our era. (5) Some Roman objects found in a necropolis at Gerenzano.

NAPLES.—ROMAN BATHS.—Between the old Via dei Morceanti, called also del Sedile di Porto, and the new street of that name, some ruins of Roman baths have come to light which appear to explain the so-called grotto or crypt under the chapel of S. Aspreno. This crypt appears to have formed a part of these baths, and its peculiarities are thus explained.—*Not. d. Scavi*, 1893, p. 432.

NOVILARA.—ETRUSCAN ARCHAIC SCULPTURED AND INSCRIBED STELE.—A recent discovery of the first order is that of a very ancient stele, which, together with some figured representations, bears a well-preserved inscription of twelve lines in Italic characters. It came to light in excavating the necropolis of Novilara, near Pesaro, namely, in that same territory where have been obtained in past times other figured stelæ of a very peculiar character. One of these latter, most resembling our present one, was made an object of study some ten years ago by Prof. Undset, who recognized in the ornamentation a distinct Mycenaean character, and explained its presence there by means of the commercial and other relations between the East and the Italian coasts of the Adriatic. The new stele has been brought to Rome and placed provisionally in a private room of the new museum at Diocletian's Baths, until Prof. Lattes, of Milan, shall have published his illustrations of it and the result of his studies thereon. The stele is eighty centimetres high, and is worked on both faces. On the top of the front face is carved a wheel of four spokes, and beneath it is a scene of combat between men and animals divided into two compartments. One portion displays various combatants armed with lances, and one armed with an axe, and near them are men and reptiles lying on the ground. In the other portion are to be seen two men, delineated in a very primitive fashion, one fighting with a bull and the other with a bear. On the left, by the side of one of the combatants, stands a pyramid. The other face of the stele is also surmounted by a wheel, but of five instead of four spokes, underneath which are twelve lines of writing, clearly engraved and very legible. On the left of the inscription is a pyramid, and on the right a cross, while all around runs a border consisting of two wavy lines. The text, which was at first thought by some to be Sabellian, and by others Illyrian, appears now to be recognized by Prof. Lattes as Etruscan.—F. HALBHERR in *Athenæum*, Feb. 17, 1894.

PALESTRINA.—THE TEMPLE OF FORTUNA PRAENESTINA.—In clearing out the earth in the area of the atrium of the temple of Fortuna Praenestina a number of architectural fragments belonging to the decoration

of the temple were uncovered, and also two fragments of marble statues—the lower part of a male figure with the *pahudamentum* and the lower part of a female figure, perhaps representing Fortuna.—*Not. d. Scavi*, 1893, p. 420.

PRATA (APULIA).—CHRISTIAN INSCRIPTION.—At about two kilom. from Prata (prov. of Avellino) is an early basilica called *l'Annunziata*, next to which is a catacomb-grotto excavated in the tufa (cf. *Arch. Stor. prov. nap.* III, 1). An inscription painted in white letters on black ground on the wall of the grotto has recently come to light, and reads:

HIC LVCIANVS CVM BONA PACE
QVIESCIT INNOCES MANSVETVS
MITES LETVS CVM AMICIS AMICVS
VIXIT ANNIS PL M L NVLLA MANENTE
QVERELLA DEPOSITVS EST IN PACE
DIXIT KL SEPTEMBRES FLABIO
MARCIANO ET ZENONE VV CC. CONS.

Flavius Marcianus was consul in 469, and was son of the Emperor Anthemius. His colleague Zeno was made consul at Constantinople by the Emperor Leo.—*Not. d. Scavi*, 1893, p. 422.

ROME.—ACTS OF THE ARCHÆOLOGICAL COMMISSION DURING 1893.—According to the *Bullettino* of the Roman Archæological Commission (1893, pp. 300-1), the following is a record of its activity during 1893:

I. Removal from the church of S. Antonio al Esquilino of the two compositions in marble *opus sectile*, which originally formed part of the rich decoration of the civil basilica built in 317 by the consul JUNIUS BASSUS. They have been placed in the Capitoline Museum. These works have long been famous and are the classic examples in this branch of art. They have been illustrated in the *Bullettino* itself by Prof. Orazio Marucchi in an article accompanied by two double plates.

II. Re-composition of the fragments of an altar and marble aedícula with bas-reliefs and votive inscriptions, found in 1875 in Piazza Manfredo Fanti, and belonging to a private *sacrarium* of foreign soldiery.

III. Restoration for the Capitoline Museum of the mosaic pavement with figures allusive to the mystic worship of Cybele, which belonged to the residence of the dendrophori on the Coelian, with the inscription relating to their *basilica Hilariana*.

IV. Decision to reconstruct on its own site the sepulchral monument of the consul Sulpicius Galba, which was discovered in the quarter of Testaccio.

V. Exploration in Via Lanza, near the apse of the church of S. Martino, in order to ascertain the architectural arrangement of the ancient building (*praedium Equitii*) on which Pope Symmachus erected this church in the first years of the sixth century.

The Commission has intervened in various ways in connection with the proposed great archæological boulevard around the city.

THE REPUBLICAN COMITIUM.—Ch. Huelsen has an article in the *Roman Mittheilungen* of the German Institute on "*the Comitium and its monuments during the Republican period*" (one plate). He studies the comitium before the changes that took place under the Empire, determines its limits and its orientation, and then explains the hitherto obscure passage of Pliny on the *accensus* of the consuls, by which notice of midday was given from the Curia. Then follow notices of the other monuments of the Comitium of which we are told by ancient writers, such as the Basilica Porcia, the Columna Maenia, the Puteal of Attius Navius, etc.

WAS THERE A TEMPLE OF JUPITER DOLICHENUS ON THE AVENTINE.—Marini, and after him a majority of archæologists, have stated that there was a temple of Jupiter Dolichenus on the Aventine, and, more precisely, on the site now occupied by the church of S. Alessio. This is based upon the mention in the catalogues of a *dolocenum* in the XIII region (Aventinus), and the existence at S. Alessio of three or four inscriptions relating to the worship of Dolichenus. Sig. Lugari controverts this opinion in an article entitled *Il Dolocenum della XIII regione*, published in the *Bull. Comm. Arch.* (1893, pp. 223-43). He points out: (1) that out of the twenty-six monuments relating to the worship of Jupiter Dolichenus in Rome, eleven belong surely to the Esquiline, three or four only to the Aventine, two to Trastevere, and the rest dispersed; (2) that two of the inscriptions of the Esquiline were seen by Ficoroni still in situ, in what must have been the tetrastyle of the Dolichenum itself; (3) that the Dolichenian inscriptions on the Aventine, like all the others at S. Alessio, were brought there from elsewhere and give no local indications; (4) that the monks of S. Alessio possessed a *castrum* on the Esquiline, probably the *castrum equitum singularium*, and probably the inscriptions came from it; (5) that hence all the Dolichenian inscriptions relate to a temple of Jupiter Dolichenus on the Esquiline, and that there was no such temple on the Aventine.

There remains to explain the *dolocenum* of the catalogues as existing on the Aventine. In regard to the ancient ruins found near S. Alessio, especially during the past two years, there is enough to satisfy the writer that here stood in the second century the *domus* of the Cor-

nelli Repentini, which he suggests may have passed in the third or fourth century to the Cornelii Potiti. In regard to the word *dolocenum*, the spelling indicates that it has no connection with Jupiter Dolichenus at all. The writer proposes to divide it into two words, *dolo* from *dolium*, *doli*, "wine or oil jars," and *cenum*, *ceui*, "a mass of rubbish." In other words, *dolocenum* would mean a large refuse heap or mound, and such a mound existed from ancient times in this very XIII region of the Aventine, and is now called the *Testaccio*.

ROMAN VICARS OVER SARDINIA.—L. Cantarelli closes in the *Bull. Arch. Comm.* for July-Dec., 1893, his articles on *Il Vicariato di Roma*, by a study of the Roman vicars or *praesides* in Sardinia and Corsica during the fourth century A. D., when the two islands were separately administered. The following is their approximate order:

Sardinia: Delphius; Julicus; Valerius Flavianus—all three under Diocletian; 293-305, Aurelius Marcus; 303, Barbarus; 306-12, L. Cornelius Fortunatianus; 308-12, Maximianus; 319, Festus; 319, Bibulenus Restitutus; 307-37, T. Septimius Januarius; 335-37, Flavius Octavianus; 337-40, Munatius Gintianus; 350-361, Flavius Amachius; 350-61, Florianus; 365, Flavius Maximinus; 374, Laodicius; 382, Matronianus; Benignus; Claudius Justinus; Publius Valerius.

Corsica: 303, Barbarus; 318-330, Furius Felix; 364, Flavius Maximianus.

In this paper the period between Diocletian and the occupation by the Vandals is alone treated, the previous epoch having received more attention from Klein and others.

WORKS OF ART DISCOVERED BY THE ARCHÆOLOGICAL COMMISSION DURING 1893 AND PRESERVED AT THE CAPITOL AND IN THE STOREHOUSES.—The following list of the finds of 1893 is summarized from the report of the Roman Committee published in their *Bullettino* (1893, pp. 283-93):

Painting.—Piece of stucco with beautiful decoration. On black ground is a band with red ground, in which is a fronting mask between two ornaments. The mask is bearded and decorated with a crown. A fine piece of work.

Sculpture.—A small bull: part of a bust of a warrior: part of middle of male figure: bearded head from a herm: delicate and very small female head with crown of wheat sheaves: fragment of large bas-relief with female (?) head: fragment of beautifully carved marble vase, among the decorations of which is a cupid about to shoot at a hippocriph, who is clinging to a graceful grape-vine; etc.

Metals.—A gold circlet: a silver ring: among the bronzes is a knob of the handle of a palanquin (?) decorated with two serpent heads.

Terracottas and glass.—Two terracotta antefixes: handle of a large and fine lamp with a bust of Jupiter Serapis on the eagle: a few lamps, lower part of small glass crater.

It is to be deplored that the Commission actually lays its hands upon so small a proportion of the objects found in Rome.

ROMAN TOPOGRAPHY.—Ch. Hülsen continues his *Topographischer Jahresbericht* in the Roman *Mittheilungen* of the German Institute (1893, 3-4). His present review follows after those published in 1889 and 1891 and enumerates all the discoveries and the studies made in the field of Roman topography during the year 1891. The writer often adds to his summaries valuable personal notes and opinions.

SICILY.

NOTO (NEAR).—SICILIAN NECROPOLIS.—Some work has been done at a necropolis on Monte Finochito, near Noto, which belongs to the so-called third Sicilian epoch, about which, up to four years ago, nothing whatever was known. The tombs had already been for the most part rifled by early depredators in search of bronze. The relics now found enabled Dr. Orsi to form some idea of the state of civilization at that time, and to fix the date of the necropolis between the ninth and seventh centuries B. C. All the vases here obtained consist of local Greek ceramic work, of imported geometric vases, or else imitations of the latter manufactured on the spot. Amongst the bronzes left are numerous *fibulæ* of boat shape, and others of a serpent form, with rings of various forms and dimensions, three glazed scarabæi, and two iron knives.—F. HALBHERR in *Athenæum*, March 24.

SALEMI.—EARLY CHRISTIAN CHURCH AND SETTLEMENT.—At Salemi in Western Sicily, in the province of Trapani, the remains of a small Christian church of the fourth or, at the latest, fifth century have been found levelled with the ground. Of the two pavements, one beneath the other, owing to restorations, the lower and more ancient one bears Greek inscriptions, while the upper and more recent one, of which very little remains, has some fragmentary inscriptions in Latin. It is to be hoped that further researches will be made on the site of what must have been one of the oldest Christian buildings in the island.

On the site of the discovery of the Christian mosaic pavement, not far from Salemi, excavations were continued by Prof. Salinas, with the result of finding underneath the first a second pavement in mosaic also with votive inscriptions. It was also ascertained that there existed here not only a small church, but a village inhabited in the fifth century of our era.—*Athenæum*, March 24; *Not. di Scavi*, 1893, p. 428.

SYRACUSE.—EXCAVATIONS IN THE NECROPOLIS OF FUSCO.—Sig. P. Orsi has begun in his usual scientific and satisfactory manner a thorough exploration of the great necropolis of Syracuse, which had hardly previously been touched except by the hand of the predatory antiquity seeker. The limited amount of money at his disposal made his first campaign a very short one, from December 5, 1892, to January 12, 1893, with an average of but 18 men. He limited his researches to a very small space, doing this thoroughly. How rich his results have been even under such circumstances is proved by the report he has just issued in the *Notizie degli Scavi*, showing that the necropolis will be invaluable for the study of the archaic Greek period.

The surplus of news has made it necessary to defer until the next issue a full summary of Sig. Orsi's report. We will add here merely a few remarks published on the subject by Prof. Halbherr in the *Athenæum* of March 24.

"The researches that have now been going on for several years in Eastern Sicily at Syracuse and in the neighborhood still yield a rich harvest of results important for the history of art and for that of the Sicilian and Greek populations once settled in that district. In the large Greek necropolis called Del Fusco, Dr. Orsi at the beginning of last summer resumed his excavations for a short period, directing them to a piece of land teeming with remains of tombs and burials. The tombs, all belonging to the Greek archaic epoch, were made, some by scooping out the rock, others by tiles joined together, while others again consisted of large vases or ossuaries. The grave goods discovered in this campaign, although not great in number, are remarkable, however, for their quality. Some of the vases are exceptionally fine, amongst them being a splendid large and uninjured proto-Corinthian *olpe*, adorned with friezes of animals. Some of the large ossuaries are of the form of *stamnoi* of geometric style, resembling the dipylon. Of importance amongst other artistic objects is a small ivory counter, with a very archaic representation of Artemis Theria."

CHRISTIAN ANTIQUITIES.

DRUDUS DE TRIVIO.—In a recent article in the *Bull. Comm. Arch.* (1893, pp. 372-77), entitled *Il panorama di Roma scolpito da Pietro Paolo Olivieri nel 1585*, Prof. Lanciani, in using for his purpose part of the monument of Pope Gregory XI, executed in 1585 by Olivieri, speaks also of the very humble original monument of this pope, who died in 1378. He was buried in S. Maria Nova, which had been his titular church, and the simple inscription on his tomb read: *Hic requiescit*

corpus beati Gregorii Pape XI. Not long ago Forcella saw in this church an inscription, which he afterwards lost sight of, but publishes in vol. II, and of this Lanciani says: "Il lodato Forcella vide 'gettata in un angolo della prima cappella a sinistra di chi entra in chiesa . . una pietra quadrata,' ora andata a male, con la pregevole memoria ✱ *Drudus de Trivivio h(uius op(er)is mag(iste)r fuit*; ma non saprei dire se abbia relazione con l'avello del pontefice."

The fact that Lanciani does not know whether the Roman artist DRUDUS DE TRIVIO could or could not have had anything to do with the monument of Gregory XI, erected after 1378, shows what a complete lack of information exists regarding this artist, who flourished nearly 150 years before this time. Some years ago this artist's name was unknown even to the few specialists who had studied the Roman mediæval school. But now notices of him are being found on every hand, and he must have been one of the foremost Roman mosaicists, sculptors and decorators of the middle of the XIII century.

His finest known work is the ciborium over the high altar at the Cathedral of Ferentino, where he signs himself: *Magister Drudus de Trivio civis Romanus*. This is one of the classic chef-d'œuvres of the school. Another perfect work of its kind was one that he executed in conjunction with another artist, Lucas—the choir-seats of the cathedral of Civita Castellana, which may be dated between 1230 and 1240.

But Comm. Enrico Stevenson, who has accumulated a mass of material concerning the mediæval Roman school, has promised the JOURNAL an article on this artist, and I shall not forestall his remarks, confining myself to calling attention to his date and importance.—A. L. FROTHINGHAM, JR.

SOME GLASS PAINTERS AND ILLUMINATORS OF THE XV CENTURY.—Sig. Alippio Alippi contributes to the Nuovo Rivista Misena (1894, p. 11) the names of some artists hitherto unknown, according to him, in the fields of manuscript illumination and glass painting in the province of the Marches.

The books of the Opera of S. Ciriaco, now in the Communal Archives of Ancona (Lez. VII, N. XXII, f. 8 rev.) contain this note: "1443, 10 de Magio. Et de dare a di lo detto duc. 2 b. 16 dati a don Domitri gia sagrestano, per resto de aluminare et scrivere uno messale et uno breviale, como appare per una bolletta de mano de mis. Andrea arciprete lo quale lavoro monta duc. 7 bo. 16."

The convent of S. Domenico at Urbino was a great artistic centre. Among others should be noted two makers of colored glass windows: Frate Nicolo di Ancona, who on June 13, 1470, received nine florins

and ten bolognini from the Confraternità del Corpo di Cristo at Urbino; and also Frate Matteo, Vicar of S. Domenico, who received on August 20, 1494, from the Convent of S. Francesco, not only some money but fragments, tin and lead, for the making of a window on which was to be the figure of S. Pelingotto (see book B of the Confraternita del C. di C., fol. 63 bis, and *Libro di Entroito et esito*, 1485-96, of archives of S. Francesco at Urbino).

THE SCULPTOR TURA DA IMOLA IN THE XIV CENTURY.—Innocenzo Fanti calls attention in the *Nueva Rivista Misena* (1894, pp. 12-19) to the monument of Giovanni Visconti da Oleggio at Fermo by the sculptor Tura or Buonaventura da Imola. Giovanni Visconti was Rector of the Marches and Papal Vicar at Fermo, where he died in 1366, having been previously at Bologna, where he was abhorred for his tyranny and which he had delivered up to the Pope.

In his will, drawn up in 1364, he instituted his wife as his sole heir, and ordered her to bury him in the cathedral: *in Ecclesia majori civitatis Formi . . . in capella costruenda in ipsa ecclesia*. The monument was erected and still remains in the new cathedral with the following inscription: *Facili . magnificique . d . d . Iohis . d . Olegio . q . rectoris . marchie . et . ad . xptum . evocati MCCCLX . VI . VIII . octob . corp . sepulc . tumulatur . puti*. And further down is the artist's signature: *Magister . Tura . de . Imola . fecit . hoc . opus*.

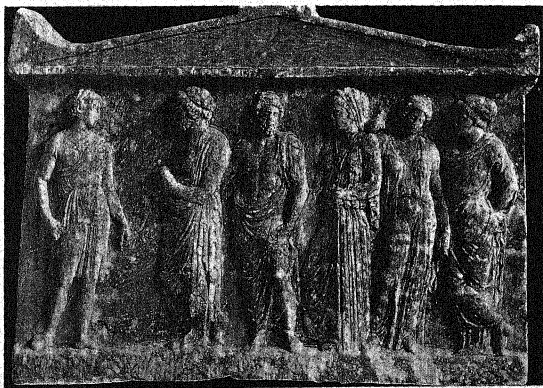
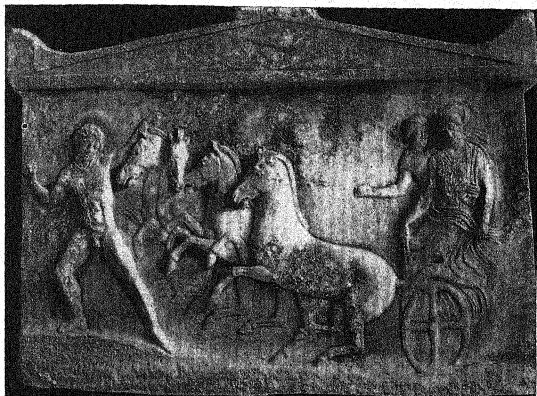
The monument is of a usual XIV cent. type, consisting of a sarcophagus on which reclines the statue of the defunct in his robes of office, surmounted by a canopy from which hangs rich drapery, the top and front being covered with reliefs.

The sculptor Tura is known to have worked with Giacomo da Fermo on the Papal coats of arm on the fortress of Ancona in 1356-7.

The writer of this note undertakes to attribute to Tura another monument in this region, the altar of the Sacra Spina in Sant' Elpidio a mare, executed in 1371, five years after Visconti's death. Here we see S. Augustine in the midst of his monks in the Gothic arch over the altar. On the front of the body of the monument are five single figures in high relief. But his knowledge is not precise nor broad enough to justify the unverified acceptance of his conjecture.

Lack of space obliges me to postpone until the next issue a large part of the Italian news and the whole of that of the rest of Europe and of America.

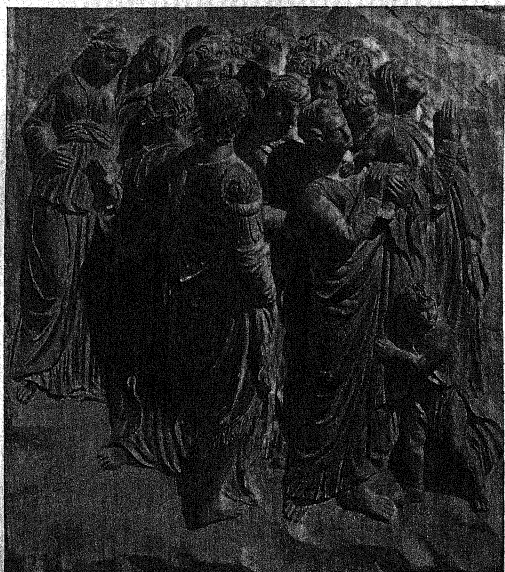
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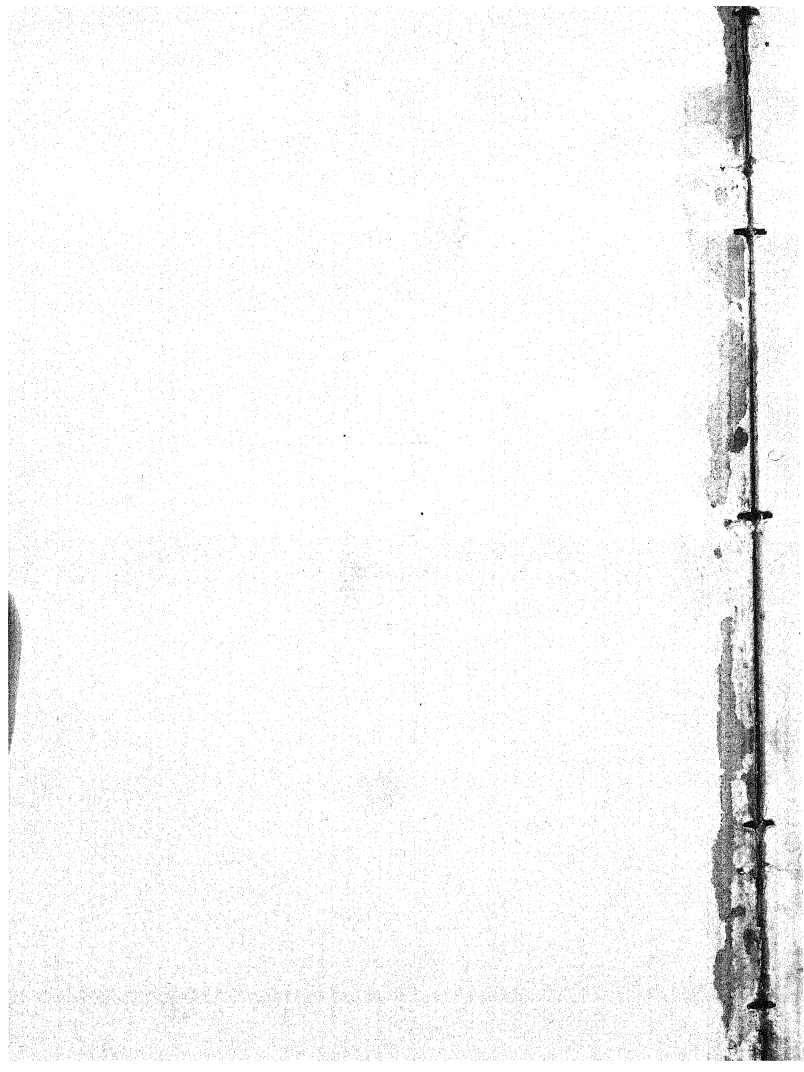
DOUBLE-FACED RELIEF FROM NEAR PHALERON.



GROUP FROM THE MOSES PANEL OF Ghiberti's SECOND BAPTISTERY GATES.



TERRACOTTA SKETCH FOR THE SAME.



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PAPERS OF THE AMERICAN SCHOOL OF CLASSICAL
STUDIES AT ATHENS.

A HEAD OF POLYCLETAN STYLE FROM THE
METOPES OF THE ARGIVE HERAEUM.*

[PLATE XIV.]

The marble head which is here reproduced on PLATE XIV is one of the many interesting finds of this season's (1894) excavations by the American School of Athens at the Argive Heraeum. The members of the School who joined me in the work were Dr. Washington, Mr. Richard Norton, Mr. Hoppin, and Mr. Alden.

It would, of course, be impossible to give at the present moment an adequate account of these discoveries. For this we shall have to wait until the conclusion of the excavations, when the mere work of arranging the numerous objects and fragments will occupy a considerable period with arduous labor. But the important bearings of this head upon the other sculptures we have unearthed at the Heraeum, as well as upon the history of Greek art in its highest period, make it incumbent upon me to publish

* As a former pupil of Professor Henry Drisler, I deeply regret that I was not notified of the proposal to do him honor by dedicating to him a volume of essays written by his former pupils, in commemoration of the fiftieth anniversary of his university work at Columbia College. I hope that, in accepting the dedication of this slight archæological essay, he will realize the lasting respect and gratitude which I feel for him.

O. W.

it at this early date, and to accompany the publication with some explanatory remarks, giving the main bearings of the discovery. These remarks are therefore of a purely preliminary character.

The head was found to the east of what on last year's plan we called the East Chambers, to the northeast of the second temple, and below the slope of the first or early temple. On a line with this point there appeared for a short distance (about eight feet) a continuation of the Cyclopean wall supporting the platform of the early temple. We had here to cut off the slope of the early temple to a depth of about twenty feet. The objects here found were chiefly of the Mycenæan and Dipylon period. But at the point where this marble head was found, nearer to the northeast corner of the second temple, there appears to have been an accumulation of *débris* massed together in either the Roman or the Byzantine period. A marble head of Roman workmanship was found in immediate proximity to this head. Mr. Hoppin was in charge of the work at the time of the discovery.

The head is of Parian marble, about one-half life-size, and represents a Greek youth or *ephebos*. It evidently came from an alto-rilievo, as the right side and ear are finished in work, while the left side and ear are not finished. The dimensions are: length of face from tip of chin to hair, 0.11 m.; breadth at ears, 0.08 m.; length of nose (tip to brow), 0.036 m.; length of mouth, 0.03 m.; distance from eye to ear, 0.04 m.; height of forehead, 0.03 m.; width of upper lip, 0.005 m.; distance from mouth to tip of chin, 0.03 m.; horizontal line from top of forehead to back of head, about 0.12 m.

It appeared to us immediately after the head was taken from the earth that there were clear traces of a reddish-brown color marking the iris of the left eye. These traces were visible for some time after and may be seen even now. But, as there were vestiges of similar color on other parts of the head, which may well have been caused by the oxidation of iron near it, I do not feel absolutely certain that the color on the eye is a remnant of the original coloring of the statue. So, too, the right side of the head has a uniform coating of some white color, which may be due to the remains of a ground-tone given to the whole head; or, on the other hand, it may be a chalky deposit caused by the chem-

ical action of matter lying about it, or of some additional treatment which the head experienced in later times.

The chief element of the archaeological importance which this head possesses is the fact that it seems to bear traces of Polycletan art or influence. These must appear to any student trained in the rudiments of the history of Greek sculpture. And this fact will appear still more noteworthy in the light of the hasty statement of Professor Furtwängler recently published in his essay dedicated to Professor Brunn, and repeated in his *Meisterwerke der griechischen Plastik*. In discussing the now well-known head which we discovered at the Heraeum in 1892, and for which the name Hera still remains the most suitable, Professor Furtwängler not only considers this head Attic in character, but he further states that "all the other sculptures found by us or by Rhangabé at the Heraeum have nothing whatever to do with Polycletus and his school." I have endeavored to refute this assertion in a letter recently sent to the *Berliner Philologische Wochenschrift*. But the discovery of the head here published will, I must believe, finally demonstrate *ad oculos* the groundlessness of Professor Furtwängler's statement.

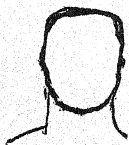
The Polycletan character of this head, and its close relation to the head of the famous *doryphoros*, in the Naples specimen as in all others, was manifest to me the moment the head was unearthed. This relationship to the heads which are universally acknowledged, by all authorities, to be Polycletan was subsequently admitted by all archaeologists who visited the Heraeum.

To begin with the general impression of character, we find it the same in our marble head and in the types of the *doryphoros*.¹

¹ I have not reduced this critical comparison to the form of actual mathematical measurements. Though I think such attempts as have recently been made by A. Kalkmann (in his *Die Proportionen des Gesichtes in der griechischen Kunst*) meritorious and worthy of encouragement, I cannot myself follow this course, especially when it concerns heads of different dimensions, different workmanship, and different destination, such as metope-heads, pedimental heads, heads of statues, etc. I prefer to aim at a careful comparison of the technical and artistic characteristics based upon sober and unbiased observation, and then to endeavor to put, as accurately and soberly as possible and into definite terms, what is thus perceived; and finally to assign tangible and perceptible causes for this artistic appearance. It may be difficult to do this, and I may often fail in my endeavor; but I would beg the student to follow me closely in comparing photographs or, if possible, casts. I find that measurements in this case would not be of much use in dealing with phenomena so subtle and unmechanical, nay, more than organic—namely, artistic.

This general impression which these Polycletan heads leave upon the spectator is that of squareness and massiveness. In the profile view this character approaches most closely to the possibility of mathematical demonstration. The outline, which depends more upon the rough blocking out of the marble, is more likely to retain the mathematical rules which guided the artist at this early stage. Now, if we ignore the curious rise of one mass of hair on the top of our head (which we may in this case discard as an individual trait not characteristic of the general style of the school), the proportions are singularly square. A perpendicular line drawn from the point of the chin upwards, and meeting the main horizontal line placed on the top of the head, is the same in length as this horizontal line bounded by perpendiculars running along the front and back of the head.

In the front-view, this impression of squareness and heaviness is maintained in the outline, in that the head is broad and comparatively short. This is best perceived by comparing the Polycletan heads with the others, say of the well-known Lysippean and Praxitelean types. The outline of our head is thus large and square; while the Lysippean head of the *apoxyomenos* in the Vatican is small and round. Again, the Praxitelean head of the *Hermes*, though larger than either in proportion, is wider at the top and at the forehead, but is longer, and tapers toward the chin. The front-view outlines of these three types of head present the following shapes:



POLYCLETAN DORYPHOROS.



LYSIPPEAN APOXYOMENOS.



HERMES OF PRAXITELES.

The impression of squareness and heaviness is further produced or strengthened by the treatment of the different features. The brow and eye present a simple, broad, and flat curve. Though in the profile view the root of the nose forms a marked projection,

still the eye is not deeply sunk, either in its relation to the brow and upper lid, or by the hollowing out of the portion below the lower lid, as is done in most heads of the fourth century B. C. The brow is thus broad and simple, and the distance between the eyelids is comparatively great, while the eyes are far apart. The line at the juncture between nose and brow is more rounded in our head than in the other heads of the *doryphoros* type.

The nose itself is broad and comparatively short. The tip is broad and rounded, not pointed and long, in profile view, as is the case, *e. g.*, in the Bologna bronze head called by Furtwängler the Lemnian Athena of Phidias, or in the *apoxyomenos*, or slightly drooping downwards, as in the Hermes. In these Polycleatan heads the tip is not pointed as in the others, but, if we continue the lines of the bridge of the nose, it is the broadest part. Again, from nostril to nostril the nose is comparatively very broad; by contrast, that of the *apoxyomenos* (of which the nostrils are certainly unrestored) is in this respect much narrower, almost pinched in expression. The nose of the Polycleatan head is one of the most effective features in giving to the face its heavy appearance.

The cheeks, especially in the profile view, present a comparatively plain surface, and their heaviness is heightened by the treatment of the chin. Unfortunately, a piece is broken away in the front of the chin of our head; still, the comparative absence of taper and its broadness and shortness are manifest, while, in the profile view, the distance from neck to chin is short.

But a most important feature is the mouth. This, slightly opened, has a somewhat pouting expression; and appears smaller than it really is, owing to the characteristic marked projection of the middle part of the thick lower lip, a feature which *all* the heads from the Heraeum have in common, and which they share with the heads hitherto admitted to be Polycleatan. In the profile view, the deep grooving between the lower lip and chin accentuates the projection of the lip and adds to this pouting expression.

This expression of the mouth, coupled with the general proportions of the head, the broadness of brow, the wide distance between the eyes, the shortness and thickness of nose, the massiveness of cheek, jaw, and chin, give to the whole head a character of heaviness which contrasts strongly with the grace, softness, and roundness of Attic work.

Another marked feature which our head has in common with Polycleetan heads is the position of the ears. The top of the ear is on a line with the upper eyelid, while the end of the lobe is on a line with the upper lip below the nose. A comparison with the *Capronesi* head in the British Museum, with the *apoxyomenos*, Hermes, and other fourth-century heads, shows a much higher position of the ear; while the various *doryphoros* heads, as well as the head of Hera, have the low position of the ear. In fact, all the features just enumerated are shared by our head and the types of the *doryphoros* in a marked degree.

But I must now also dwell upon the deviations in the style of this Heraeum head from that of the head of the *doryphoros*. Yet it will be found that the heads of works universally admitted to be Polycleetan (such as the bronze head by "Apollonios" at Naples, the head of the Naples statue, the marble *doryphoros* of the Vatican, the *diadoumenos* of Vaison, etc.) differ considerably among each other, and that these divergences from the established Polycleetan type are much more marked in the *diadoumenos* of Vaison than in our head.

These deviations are to be found, first, in the fact that the general modelling of our head is less definite and clear-cut than in the "Apollonios" bronze. But this is probably due to the peculiarities of the marble technique in contradistinction to bronze work. I have already referred to the slight difference in the treatment of the line at the angle of brow and nose, which in our head is not so firm and severe, but is more rounded. The eyelids also are not cut with the same firmness.

But the most important difference is to be found in the treatment of the hair. No doubt, our head has suffered much by the wear of time, in that the sharpness of the ridges in the modelling of the hair has been lost. But the artist never gave the peculiar sharpness of the *doryphoros* hair to this head. Instead of the fine modelling of the single strands, not thickly undercut, lying flat over the scalp, which allow the shape of the skull to appear well-defined (so marked a feature in the hair of the *doryphoros*), the hair of our head is cut in larger, vague masses, slightly indicated; though the characteristic shape of the skull is not hidden by this treatment, as it usually is in such cases.

The deviations may be well accounted for by several causes. First, the difference between marble and bronze technique. The hair of the *doryphoros* marks that stage in bronze technique in which the locks are not cast in bold relief but follow the masses of the form, and the reminiscences of the older toreutic art in its finer engraving-work still assert themselves. The marble technique in the second half of the fifth century B. C., however, had introduced a freer treatment in broader masses, and in the work of detail some of the minute precision had been lost. But these differences of style have been remarked in the works hitherto ascribed to Polycletus. Furtwängler himself has pointed out² the difference in the style of the Amazon and the *doryphoros*. He gives circa 440 B. C. as the date of the Amazon. "But his *doryphoros* is certainly not later, but earlier than the Amazon, as the latter demands the existence of the former, and as its style, especially in the flat-lying hair, appears older." The date of the *doryphoros* would thus be earlier than 440 B. C.; and, if there are discrepancies in the treatment of hair between that work and the Amazon, how much greater must we expect the discrepancy to be between it and a work which cannot be earlier than 423 B. C.

Finally, we must bear in mind the original destination of different works as modifying the treatment of details. The hair as treated in a pedimental figure, or in one from a metope or a frieze, to be seen from a great distance, must necessarily be different from that of a work to be seen close at hand. If, for instance, Furtwängler is right in his ingenious identification of the Bologna bronze head with the head of the Lemnian Athena by Phidias, how could we ascribe this work, with its richly-modelled hair, and the lapith-heads from the metopes of the Parthenon, with their cap-like expanse of hair (no doubt assisted in the indication of texture by color), to the same Phidias origin—if we judged merely from the treatment of this detail.

Though, as I believe I have shown elsewhere, the comparison which Furtwängler makes between our head of Hera from the Heraeum and the small Brauronian head at Berlin, so far from showing any relationship between them reveals essential contrasts; still, even if we could trace some Attic elements in the Hera head

² *Meisterwerke der griech. Plastik*, p. 414.

and the other sculptures from the Heraeum, these would in no way make them Attic. For it would be strange if, with the advance made in marble work in Attica during the period of the artistic leadership of Phidias, and with all the sculptured decorations of the numerous buildings erected in this period at Athens, the sculptors working at the Heraeum more than twenty years later should not have felt the Attic influence, as probably the Parian marble-workers had, at an earlier period, influenced the Attic workers in marble technique. It would be a curious and unprecedented view to maintain that Polyclethus and his school never worked in marble. Still, I suspect that this general view is held by Furtwängler, and that it is this general view which has led him to such a sweeping and hasty statement with regard to the sculptures from the Heraeum.

Should traces of Attic workmanship be found in some sculptures of the Argive school, it is probable that we may find Argive influences in the Attic work of this later period, as they have already been suggested by Petersen and others in earlier Attic work.

We must remember that, at the date of the building of the Heraeum, Phidias was dead, Polyclethus was distinctly the most renowned sculptor of Greece, and that the Argive school under him was so famous and flourishing that its offshoots spread over Greece, and may have started that important school at Sicyon which made this town the most noted centre for painting as well as sculpture in the next century. If Lysippus is reported to have considered the *doryphoros* of Polyclethus his teacher, no doubt many an artist contemporary with Polyclethus was equally influenced by his works, even if such an artist lived at a distance. And there is one instance of a definite work upon which I must lay some stress. For I again venture to suspect that Furtwängler may have been guided in assigning an Attic origin to the Hera by the similarity of head-dress which this work has to the Caryatides of the Erechtheum. I had noticed this similarity; but I discarded any idea of the immediate identity of school, when I compared the rounded treatment of the faces of the Attic maidens with that of our head of Hera. Yet the similarity in other points is most natural, when we consider the proximity of date between the

building of the Athenian and the Argive temples. Furthermore, we must remember that among the famous works of Polyclethus, according to Cicero (*in Verr.* iv. 3-5), were two Canephorae maidens which he represented in the Attic dress. The existence of such well-known works by the most famous sculptor of the day would well account for the similarity; *only it would be the Caryatides of the Erechtheum which would be influenced by the Argive work, and the Attic influence in the head-dress of the Hera would be illusory.*

But to return to our head of the *ephebos*. In spite of the differences in the treatment of the hair, the characteristics of this head are distinctly those of the *doryphoros* head, and it must thus be classed as Polycletan. It only confirms what all other arguments led us to believe, that all the works from the temple of Hera (in which Polycletus of Argos, the leading sculptor of the day, fashioned the famous gold and ivory statue) are Argive works of the Polycletan school, as the sculptures of the Parthenon are Attic works of the Phidias school. And it would require very powerful reasons and numerous definite facts to justify us in doubts of this natural ascription.

CHARLES WALDSTEIN.

August, 1894.

STAMPED TILES FROM THE ARGIVE HERAEUM.

Clay that is to be fired presents an opportunity easily to fix a name so that it shall become more durable than one laboriously chiseled in stone. This opportunity is one too tempting to be neglected, and from the time when the Assyrians stamped their bricks, down to the present day, it has been improved. Tiles and bricks made by Romans, and impressed with the names of the legions by whom and for whom they were made, have been found all over Western Europe.¹ Perhaps less attention has been paid to Greek material of this character because the material itself has been less abundant. Birch (*Ancient Pottery*, p. 116 ff.) gives a list of the examples known at the time of the publication of that work. But that was nearly forty years ago; and even the second edition is more than twenty years old. In this interval many additions have been made to our stock.

The two great excavations at Olympia and Delos, to be sure, added little to this material. But at Lycosura many tiles were found bearing the stamp *Δεσποίας*.² We also have three stamped tiles from Chios,³ two from Magnesia,⁴ two bricks from Tralles.⁵ Similar material comes from the Peiraeus,⁶ Tanagra,⁷ Tegea,⁸ Elateia,⁹ and Eretria.¹⁰ Of especial interest is a tile fragment from the temple of Apollo at Amyclae, in the Central Museum at Athens, and not yet published. On this the stamp has been impressed twice. The first time it was done so carelessly that only the top

¹ MARINI, *Inscrizioni doliari*; BIRCH, *Ancient Pottery*, at the end.

² *Excavations at Megalopolis*, p. 141.

³ *Mith. des deutsch. Arch. Inst., Athen*, XIII, p. 182.

⁴ *Ibid.*, XIV, pp. 105, 106.

⁵ *Bull. de Corr. Hellén.*, x, p. 327.

⁶ *Ibid.*, xi, p. 209.

⁷ *Ibid.*

⁸ *Mith. des deutsch. Arch. Inst., Athen*, iv, p. 144.

⁹ *Bull. de Corr. Hellén.*, xi, p. 109.

¹⁰ *Eleventh Annual Report of the Am. School of Classical Studies at Athens*, p. 40. In the excavations of the present year at Eretria another example was found.

line "took." We read ΑΠΟΛΛΩΝΟΣ. It is perfectly evident, however, from the breadth of the indentation in the clay, that another line ought to be there. But by good luck the workman saw his failure, and planted his stamp again about an inch higher up, this time squarely. The larger portion of the lower line has been spared. Just at the top of the fragment we read:

ΛΛΩΙ
ΜΥΚΛΑΙΟΙ

Hardly less interesting is a brick from Sparta stamped:

ΠΑΙΝΘΟΙΔΑΜΟCΙΑCΚΑΝΟ
ΘΗΚΑCΕΠΙΚΑΛΛΙΚΡΑΤΕΟC
ΕΡΓΩΝΑΝΙΚΑCΙΩΝΟC¹¹

A tile was found at Epidaurus with the stamp ΑΝΤΩΝΕΙΝΟΥ.¹² Many of a similar character were found at Megalopolis.¹³

But the largest store has been found at Pergamon. By the kindness of Dr. Wolters I have been allowed to see copies of these from the article of Schuchhardt now in preparation. These contain 112 different stamps, and in some cases there are over 40 impressions from a single stamp.

It is not likely that I have seen all the material which has been found in later years and received casual mention in various periodicals; but enough has been here catalogued to show that certain stamped tiles found in the excavations of the American School at the Argive Heraeum are no isolated phenomenon in Greece.

Of these tiles three fall at once into a class. One fragment yields ΠΧΙΤΕΚΤΑΝ, a second ΤΕΚΤΑΝ, and a third ΣΚΛΗΞΑΡΥ. The letters in all three are of the same form, about a half an inch long, and raised.¹⁴ There is no room for doubt that they are all from a single stamp, and one can easily restore for all the reading:

ΣΚΛΗΞΑΡΥΠΧΙΤΕΚΤΑΝ

¹¹ *Mith. des deutsch. Arch. Inst., Athen*, II, p. 441.

¹² KABBADIAS, *Fouilles d' Epidaur*, p. 107, No. 247.

¹³ *Excavations at Megalopolis*, p. 140, and *Jour. of Hell. Studies*, XIII, pp. 332, 336.

¹⁴ Particularly noteworthy are the small α, the Σ with oblique upper and lower bars, the κ with short oblique bars, and the very long Ε, which makes ΕΚΤΑ ascend like the side of a flight of steps.

By a piece of good fortune, the Central Museum possesses a fragment found by Stamatakis at the Heraeum in 1878, containing $\Lambda\text{H}\Xi\text{AP}\times\text{ITE}\text{K}\text{T}\sim\text{N}$, evidently stamped with the same die. To remove any lingering doubt as to all these pieces belonging to a series, it may be added that they are all of the same thickness (0.035 m.); that about 0.025 m. from the top (which is the only original edge preserved) a thin stripe is impressed; that the stamp is in each case placed immediately below this line, always on the concave side of the tile, which on this side had a finish not given to the other side; and that the clay in all is rather coarse. After working out this problem, I had my attention called to a whole tile in the Polytechnikon, found by Dr. Schliemann in 1874 in the village of Chonika, about a mile and a half from the Heraeum. Here stands in full:

$\Xi\sim\text{K}\Lambda\text{H}\Xi\text{AP}\times\text{ITE}\text{K}\text{T}\sim\text{N}$

At the bottom of the tile is another stamp:

$\Delta\text{A}\text{M}\text{O}\text{I}\text{O}\text{I}\text{H}\text{P}\text{A}\Xi$

This is, of course, for $\Delta\alpha\mu\acute{o}\sigma\text{ιο}\iota \text{Ἡρας}$,¹⁵ and would mark the tiles ($\kappa\acute{\epsilon}\rho\alpha\mu\text{o}\iota$ being understood) as the public property of Hera.

On the stamped tile from Sparta, above mentioned, we had $\pi\lambda\acute{\upsilon}\theta\text{ο}\iota \delta\alpha\mu\acute{o}\sigma\text{ιο}\iota \sigma\kappa\alpha\nu\theta\acute{\eta}\kappa\alpha\varsigma$, an exactly parallel case. So on the Peiraean fragments we have $\text{M}\text{O}\Sigma\text{I}\text{A}\text{T}\text{E}\text{I}\text{P}$ with $\pi\lambda\acute{\upsilon}\theta\text{o}\varsigma$ probably supplied. The three Tanagra tiles bear $\Xi\text{O}\text{I}\Xi\text{O}\text{M}\text{A}\Delta$.¹⁶ The Tegea tile bears $\Delta\text{A}\text{M}\text{O}\Xi\text{I}\text{O}\Xi$.¹⁷ A fragment of brick also from Tegea has — $\tau\eta\varsigma \delta\alpha\mu\acute{o}\sigma\text{ιο}\upsilon$.¹⁸

Another tile, an inch thick and of great concavity, found at the Heraeum, has $\Delta\text{A}\text{M}\text{O}\text{I}\text{O}\text{I}$.¹⁹

¹⁵ In some Argive inscriptions σ between vowels is changed to h , as in $[\Delta\alpha\mu\text{o}]ia$, ROBERTS, *Introd. to Greek Epigraphy*, No. 79, and $\text{Ἐπολ}\eta\eta\acute{\epsilon}$, No. 81, while in other cases, in the same position, it vanishes altogether. Thus in *CIG.*, I, 1120, $\text{Τελ}\acute{\epsilon}\iota\pi\text{πο}\varsigma$ is used three times for $\text{Τελ}\acute{\epsilon}\sigma\text{ι}\pi\text{πο}\varsigma$, and $\Theta\rho\acute{\alpha}\delta\upsilon\lambda\text{λο}\varsigma$ for $\Theta\rho\acute{\alpha}\sigma\upsilon\lambda\text{λο}\varsigma$ (in COLLITZ und BECHTEL, *Argivische Inschriften*, p. 127, the rough breathing is given to these names). See AURENS, *De Graecae Linguae Dialectis*, II, p. 78 f.

¹⁶ *Bull. de Corr. Hellén.*, XI, p. 209.

¹⁷ *Mitth. des deutsch. Arch. Inst., Athen*, IV, p. 144.

¹⁸ LE BAS et FOUCART, *Inscr. du Peloponnèse*, p. 341 f.

¹⁹ At Eretria, this year, a small fragment of a tile was found containing apparently ΔHMO EPETPI , but if ΔHMO be the true reading of the somewhat worn letters, H and M are strangely crowded together. The letters really look more like ΔIMO , an interesting iotacism.

This word *δαμολοι* does not put us in possession of any very definite information, such as that secured by the English excavators at Megalopolis, who identified the Philippeium by stamped tiles.²⁰ The whole precinct was sacred to Hera, and the tiles of any building, or even of a drain-pipe, might have been said to belong to her.

One's first thought is of roof-tiles. But the tile that we have entire in the Polytechnikon is very heavy and coarse. It is 1.10 m. long, 0.51 m. broad at the top, 0.44 m. broad at the bottom, 0.035 thick. The edges are cut off with a slant, making a cross section of this form :



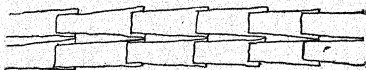
It has been suggested to me that it might be a drain-tile, but so slight is the concavity that it would take at least five such pieces to make a cylinder, and this would be enormously large—a metre and a half or more in diameter. Of course, this might be the case; the tiles, however, would not make joints, but would simply touch one another with sharp edges, thus :



It is not likely that the edges would have been made to fit so poorly if this had been the end for which the tiles were designed. Neither is it likely that tiles like this were intended to go in pairs, making a flat drain (one being imposed upon the other), for in that case the edges would have met thus :



For only one sort of a drain does a tile of this shape seem fit, viz., for an open drain. The lower smaller end of each upper tile would fit into the broader upper end of each lower tile, and make a good drain for a small quantity of water, *e. g.*, the dripings from a roof. But it would be strange if such drains existed in quantity enough to have afforded us almost our only survivals of Heraeum tiles. Furthermore, a system that was fit for an exposed drain was fit to serve as a series of gutter-tiles on a roof (*σωλήνες*). The zigzag edge was perhaps rude, but it could be covered by the *καλυπτήρες*, as may be seen by the annexed cut :



²⁰ *Excavations at Megalopolis*, p. 141.

There is a breadth of only slightly over 0.14 m. to be covered by the *καλυπτήρ*. It would be just 0.14 m. if the turned up edges of the *σωλήνες*, for so we may now call them, were cut off straight and not with a slant. If the *καλυπτήρες* were as thick as the *σωλήνες*, they must have had a superficial breadth of 0.21 m.²¹ Perhaps we may assume 0.25 m. as a maximum. The *σωλήνες* could have at most only 0.30 m. exposed.²²

The actual result was probably a roof divided in its surface about equally between gutter-tiles and covering tiles. The taper of the gutter-tiles affords an easy way of fitting each one into the next lower. Probably the covering tiles were arranged in the same easy way, the narrow upper end being overlapped by the broad end of the next covering tile. Perhaps this may not have made so dainty a roof as those of buildings with marble tiles, with their delicate *καλυπτήρες*, or as that of the Treasury of Gela at Olympia with its more carefully matched clay tiles. But that it is a probable and natural arrangement is shown by the fact that tiles are now adjusted in the same way. The only difference is that they are made much smaller. The tile in the Polytechnikon must be twenty or thirty times as heavy as those now in common use on the roofs in Athens. They were large enough to be held in position by their own weight, without mortar, even in spite of considerable wind, thus making a roof comparable to those made of flat stones, so common in the valleys of Northern Italy, where fierce winds sweep down over the passes.

These tiles might be taken as quite old and primitive were it not for the stamp, which forbids such a thought. This even forbids putting them so far back as the erection of the new temple of Hera, which was probably begun soon after the destruction of the older temple in 423 B. C., and completed before 400 B. C., to say nothing of the fact that Pausanias mentions Eupolemus as the architect of that temple. The West Building, also, if the signs of its age have been correctly estimated by the visiting architects, could not have borne these tiles on its *first* roof. Its massive character, however, and the short span of its roof would make it a very proper building to carry such heavy tiles.

²¹ The computation would be as follows: the taper of the *σωλήν* (0.07) plus twice the thickness of its edge (0.14).

²² The computation would be as follows: $0.44 - (0.035 \times 2 + 0.035 \times 2) = 0.30$.

Not to be too exact about the forms of letters on a *stamp*, and that, too, outside of Attica, where we are always uncertain as to dates of certain forms, we may yet say with considerable safety that the stamp cannot be earlier than the fourth century. The small *omega* would seem to make it venturesome even to put it into that century at all. But against any very late date may be arrayed the following considerations:

1. A has a straight crossbar.
2. \approx has its upper and lower branches very divergent.
3. There is no attempt at ornamentation.

The place of finding of the fragments seems to give no clue as to the building on which they were used, for in only one case have we any record of that item: one was found at the east end of the Stoa above the new temple. But they may have belonged to some building made several centuries after the temple of Hera.

We must be on our guard. The stamp-maker may have indulged in an affected archaism. The irregularity of the ending $\text{E K T} \sim \text{N}$ may be due to that. On the Amyclae stamp there is no sign of a later date than 300 B. C., other than a very late form of the *omega* (W). As for \approx with divergent upper and lower bars, it is found on bricks made perchance a year ago at Chalkis.

As to the name *Sokles*, a *Koseform* for *Sosikles*, it is common enough, and affords no particular interest. But the meaning of *ἀρχιτέκτων* is an interesting question. The word seems, judging from its use in numerous inscriptions, to have the definite meaning of "supervising architect," holding office sometimes for the erection of a certain building, as in the case of the temple of Asclepius at Epidaurus, or for a term during which he would supervise all building and repairs, as at Delos. His office is well described by Fabricius (*Hermes*, xvii, p. 17), and by Homolle (*Bull. de Corr. Hellén.*, xiv, pp. 477 ff.), who remarks: *Dans un grand Sanctuaire comme celui de Delos, où les réparations, à défaut même de travaux neufs, exigeaient continuellement la surveillance et la capacité d'un homme de métier, on ne pouvait se passer d'un architecte. L'habitude d'attacher d'une façon permanente un architecte aux temples était assez répandue dans le monde grec.*

In CIA., i, 322, *Philokles* is mentioned as an *ἀρχιτέκτων*, who with a *γραμματεὺς* belonged to a board of *ἐπιστάται τοῦ νεοῦ τοῦ ἐν πόλει, ἐν ᾧ τὸ ἀρχαῖον ἄγαλμα*, supposed to be the Erech-

theum. In *CIA.*, I, 324, a year later probably, for work on the same building an ἀρχιτέκτων named Archilochus received 37 drachmas for one prytany and 36 for another. This is pretty clearly a drachma a day. According to the same account, men who worked on columns got as high wages as 20 or even 22 drachmas a prytany. In *CIA.*, I, 60, ἀρχιτέκτων and ἀρχιτέκτονες are frequently mentioned in connection with what is supposed to be the same work as that above mentioned. In an inscription from Delos, published by Homolle,²³ a certain Philistides receives a payment of one drachma a day. Homolle supposes him to have been the *architekton* who supervised all the buildings at the time on the island of Delos. At any rate, it appears that nothing was done in great building enterprises without the consent and advice of the *architekton*. κελεύει ἀρχιτέκτων is a phrase of very common occurrence in building-inscriptions; it occurs 34 times in the accounts of the *hieropoioi* of the temple of Apollo at Delos, edited by Homolle in *Bull. de Corr. Hellén.*, VI, pp. 6 ff. The *hieropoioi* make payments at the order of the ἀρχιτέκτονος καὶ τῶν ἐπιμελητῶν, *ibid.* pp. 7, 8. In the Eleusinian inscription published by Foucart, *Bull. de Corr. Hellén.*, IV, 226 ff., we read ὅπου ἂν δοκῇ τοῖς ἱεροποιοῖς καὶ τῷ ἀρχιτέκτονι. In the great building-inscription of Lebadea (*Insc. Graec. Sept.* 3073, line 160), we see that a completed piece of work is submitted to the ἀρχιτέκτων, while minutiae like the separate joints are attended to by a ὑπαρχιτέκτων.²⁴

In an inscription from Epidaurus²⁵ mention is repeatedly made of an *architekton* Theodotos, who served for a period of over six years at a salary of a drachma a day.²⁶ But the salary of an ἀρχιτέκτων was not uniformly a drachma a day.²⁷ In the year 279 B. C., at Delos, he received two drachmas a day; but at the same time certain workmen, *Nikon* and his son, get the same amount for working on a column.²⁸ At Eleusis, in the time of Ly-

²³ *Bull. de Corr. Hellén.*, VIII, p. 305 ff.

²⁴ Cf. line 58: ἀρεστῶς τοῖς νεποιοῖς καὶ τῷ ἀρχιτέκτονι (it was easy for Dittenberger to restore in No. 3075 [καθὼς ἂν κελεύῃ ὁ ἀρχιτέκτων]). Cf., also, *CIG.*, 2266, line 19: ἐπειδὴν δὲ συντελεσθῇ τὸ ἔργον, ἐπαγγειλάτω ὁ ἐργῶνς τοῖς ἐπιστάταις καὶ τῷ ἀρχιτέκτονι.

²⁵ KARRADIAS, *Fouilles d' Epidauré*, p. 78, Inscr. No. 145.

²⁶ His payment for one year is 350 drachmas; for another it is 353 drachmas.

²⁷ See the list given by Homolle in *Bull. de Corr. Hellén.*, XIV, p. 478.

curgus, an ἀρχιτέκτων received 72 drachmas for one prytany, or two drachmas a day,²⁹ while an *epistates* of seven men received only ten drachmas for the same time.³⁰

The ἀρχιτέκτων ἐπὶ τὰ ἱερὰ at Athens,³¹ and the ἀρχιτέκτων who had so much to do with the theatre of Dionysus, were undoubtedly supervising architects, whatever other functions went along with that office. The four persons mentioned in *CIA.*, II, 194, col. c, as ἀρχιτέκτονες, are similarly engaged, although their work is at the Peiraeus in connection with the ships.

Two things come out reasonably clearly from this list of inscriptions:

1. When a man is called an ἀρχιτέκτων, as *Sokles* here is, he cannot be considered to be the head of a tile factory.³² In that case he would probably have been called κεραμεύς. *Sokles* was doubtless the supervising architect for some particular building or for some one or more years.

2. The other result may seem surprising; but it does appear that a man who undertook important responsibilities, requiring special knowledge and training, received the small payment of one or two drachmas a day.³³ This may be a good illustration that officials in Greece did not look for great profit. Quite likely, the only reason why the architect at Athens was paid at all, while the board of ἐπιστάται with whom he was associated gave their services free, was that he had to give up *all* his time to the work. Perhaps the payment given to a member of the Boulé during his time of actual service was regarded as a proper standard in paying for this sort of service. Probably the only difference between such an ἀρχιτέκτων as *Sokles* and Ictinus or Libon,³⁴ was that the latter were engaged in more important undertakings.

²⁹ Cf. line 71 of the great inscription published by Homolle in *Bull. de Corr. Hellén.*, XIV, pp. 389 ff.

³⁰ *CIA.*, II, 884^b.

³¹ *Ibid.*, col. II, line 9.

³² *CIA.*, II, 403, line 28.

³³ For the head of a tile factory to style himself ἀρχιτέκτων would probably have seemed more of a wresting of language than when now-a-days a dancing-master assumes the title of professor. FOUCAUT (in *Bull. de Corr. Hellén.*, VIII, p. 407) understands a brick from Thebes to bear the stamp of the maker's name, adding: *Les marques de ce genre sont encore assez rares en Grèce.*

³⁴ That an architect was a man of some standing might appear from the words of [PLATO], *Anterastae*, p. 185 B: Ἐν τῇ τεκτονικῇ τέκτονα μὲν ἂν πλείστοι πέντε ἢ ἑξ μὲν ἄκρον, ἀρχιτέκτονα δὲ οὐδ' ἂν μίσην δραχμῶν.

³⁵ It is a little strange that PAUSANIAS (V. 103) speaks of Libon as a τέκτων.

A word may here be added as to the practical reason for stamping tiles. *Sokles*, who *may* of course have had his own tile-making establishment, did not wish to have a pile of his tiles stolen or mixed up with similar tiles.³⁵ Perhaps it is not without a bearing on such possible purloining that we read an account of the *hieropoioi* at Delos,³⁶ running thus: "Bought 200 pairs of tiles; put 70 pairs on one building, 44 on another; and turned over to the following *hieropoioi* a remainder of 76." No mention is made of the deficit of ten.

The tiles were probably formed in a wooden mould, like that referred to in an inventory of Delos³⁷ as a *τύπος ξύλινος κεραμίδων*. That in some cases the stamp was affixed by a separate impression might seem probable from the fact that the upper stamp with *Sokles'* name was not exactly uniform with reference to the stripe above it. But this may also be accounted for by supposing the metallic stamp, which made the letters so clearly cut, to have been a little loosened from the wood of the mould in some cases. I saw some moulds at a brick manufactory in Eleusis, the other day, in just that condition.

The other stamped fragments found at the Heraeum during the first two years of excavation are so small that it is difficult to tell whether they are tiles or plaques. On one from the so-called West Building, 0.12×0.07 m., roughly estimated, we have:

ΕΠΙΝΙΚΟ
A

After A what looks like P follows, but this is uncertain. The rest of the lower line is worn away. Coming to this from the pieces just discussed, one would be predisposed to read *Ἐπίνικος ἀρχιτέκτων*, but it is quite as likely that *ἐπὶ* is a preposition followed by a genitive, as in so many of the Corfú stamps containing the names of prytans (Riemann, *Les Isles Ioniennes*, pp. 47, 54), or in the numerous stamps on amphora-handles collected by Dumont in *Insc. Céramiques de la Grèce*. The word following the

³⁵ The stamp with *Sokles'* name, being on the upper end, would disappear when the tile was laid, even if it were a gutter-tile.

³⁶ *Bull. de Corr. Hellén.*, VI, p. 136.

³⁷ *Bull. de Corr. Hellén.*, VI, pp. 29 ff.

name may be ἄρχοντος, for aught we know. Another fragment still smaller, 0.09×0.07 m., has a name clearly in the genitive. To the left we read:

ΥΟΛΙ

Λ

It is evident that the top line runs from right to left, and we probably have a name ending in λου. If the next line turns back in a Boustrophedon order, we may here have ἐπὶ -- ἰλου ἄρχοντος or ἀρχιτέκτονος. Such a turning back of the second line is seen in one of the Megalopolis tiles.³⁸ In our inscription, as in that one, ΔΥΟ is also possible, since the mark at the edge of the fragment, after the supposed A, looks oblique, and may be a part of a Υ. The reading of the name from right to left has many parallels in stamps. A Megalopolis tile³⁹ has the name Φιλυπποίμην read this way. The three tiles from Tanagra read in the same way,⁴⁰ as well as one of the three tiles from Chios before mentioned. The maker of the stamp in these cases preferred to cut his letters running in the usual order, regardless of the hundreds of impressions which would thus read reversed.

We are sure that in some cases the stamps were not cut as a whole, but were made up of movable letters.⁴¹ On an amphora-handle from the Peiraeus,⁴² the reading is from right to left; but the letters Ξ, P and K are left turned the other way. In turning his letters the workman forgot to arrange them so as to make the direction of the word and of the letter consistent.

A series of four tile fragments was found on the south slope below the Heraeum just at the close of the last year's work (spring 1894). These contain:

1. ΕΠΙΠΟΛΥΓΝ
2. ΕΠΙΠΟ
3. ΕΓ
4. V ω

They are all impressed on the concave side of fragments about

³⁸ *Jour. of Hell. Studies*, XIII, p. 386, No. 1.

³⁹ *Ibid.*

⁴⁰ *Bull. de Corr. Hellén.*, XI, p. 209.

⁴¹ BLÜMNER, *Technologie und Terminologie*, II, p. 32; and DUMONT, *Inscr. Céram.*, pp. 395, 396, 398, where are cuts illustrating the making up of these stamps, in some of which letters are misplaced.

⁴² *Bull. de Corr. Hellén.*, XI, p. 207.

an inch thick. The letters are not raised, as in the other fragments here catalogued, but depressed. The fact that in No. 1 Ε is so close to the Π as not to allow room for the cross-bar of the latter to extend so far to the left as in Nos. 2 and 3, points to a slight difference in the moulds, possibly due to the use of movable letters. The date of this stamp is evidently very late. Whether Polygnotus was an architect or a sacred official for the year is not known.

At the same time and place was found a small fragment with very large letters (about an inch long) furnishing the beginning of two lines :

Ε Π
Μ Α

and a still smaller piece of the upper right-hand corner of a tile with Ξ next to the preserved edge. This Ξ is exactly like those in the *Sokles* stamps, and the piece agrees in thickness; but this cannot belong to that series unless the *Δαμοίαι* "Ηρας was transferred to the top. There are also two stamps from late Roman times found in the second year's work, one on a piece of tile so small that it affords only ΚΛΟΙΕΕ (the letters are perfectly plain). The second one is broken a little at the right-hand lower corner, and the raised letters are badly worn in the middle of the second line, but it looks as if it were not going to be difficult to read. It runs from right to left, thus :

VOIΔVAAH
ΔΘ JJOOAIX
AAΘJV OI

Hopefully as the first line and the first half of the second look, affording Κλαυδίου Κλεορθ — —, we must leave the rest unsolved.

Besides the stamps here described, there were several letters, apparently scratched into some of the tiles when these were moist. But they furnish no words. Perhaps they were builders' marks, or marks to designate property.

RUFUS B. RICHARDSON.

American School, Athens,
July, 1894.

SOME INSCRIPTIONS FROM THE ARGIVE HERAEUM.

The inscriptions here published were found in the spring of 1893. They are none of them older than the second period in the Argive inscriptions, which is especially characterized by the three-stroke *sigma* (ς) and by the dotted *omicron* (\omicron) (cf. Kirchhoff, *Studien* ⁴ p. 98; Roberts, *Grk. Epig.*, pp. 108, 117). Several are considerably later than the date of the introduction of the Ionic alphabet, which probably took place in Argos, as elsewhere, about the close of the Peloponnesian War (cf. Kirchhoff, *o. c.*, p. 100). The fragment XI, indeed, can scarcely be earlier than Roman times, and No. XII, which will be published later as an addendum to the present series, is very likely of much the same date.

I.

Inscribed on a small Doric capital and on a portion of its column found in the West Building (cf. Waldstein, *Twelfth Annual Report* of the Am. School, p. 34), near the third base of the inner row of columns, counting from the south (excavator's note). Now in the guard's hut at the site of the excavations. Diameter of column, 1 ft.; height of echinus, 4 in.; width of abacus, 1 ft. 9 in.; height of abacus, 4 in.; height of letters, about .8 in.

(a) is inscribed on the abacus and is difficult to read, owing to the damaged state of the surface of the stone. Professor Tarbell was the first to read line 1, but the defective squeeze which he used did not show the letters in line 2. It is possible, but not certain, that the letters T \omicron N should be read before Π in line 2.



(a)

ἐν Νε]μέα Τευέα τε ν—νν — —
... Πελλάν[α ...

(b) is inscribed on the column, there being two letters in each flute, as is shown in the facsimile. The uneven stretching of the squeeze has caused the lines to appear not quite equi-distant from one another.



(a) shows clearly that the inscription is the dedication of some object by a victor in various games (cf. Furtwängler, *Mittheil. Athen.*, v, pp. 30 and 31, note 2). Similar inscriptions are quoted by Pausanias in his account of Olympia, and the excavations there have yielded some of the same class (cf. *Archäologische Zeitung*, 1876-1878). The following numbers from the Anthology may also be cited for comparison: XIII. 5, 8, 14, 15, 16, 18, 19. xvi. (Planudea), 23, 24. Vol. III, (Firmin-Didot), I. 23, 24, 30, 44, 50, 82, 89, 102, 106, 291. *Addenda* to Vol. III, I. 86 b.

II.

Inscribed on a stone built into the wall of one of the dwellings(?) which adjoin the stoa marked C on the map (cf. *Am. Journal of Arch.*, VIII, pl. XII, and Waldstein's *Report*, pp. 31, 32). The wall is not of the best construction, and the inscribed stone was undoubtedly brought from elsewhere and built in at a date later than that of the cutting of the inscription. The dimensions of the stone, which has apparently been cut down to fit into its present position, are 2 ft. 11.5 in. by 1 ft. 11.5 in., and the upper line of the letters is 3.5 in. below the top of the stone. The height of the letters is about 3 in. The upper left-hand corner of the stone is broken off. The inscription is very clearly cut. The apparent dot in the first O is almost certainly only a break in the surface of the stone. The form of *sigma* is noteworthy in an Argive inscription.



Possibly this may be a patronymic genitive in a dedicatory inscription.

III.

Found just to the south of the West Building among some architectural fragments. The inscribed stone is of irregular shape, but the measurements may be roughly given as 11 in. by 5 in. The height of the letters is about 1.2 in. The dot in the O is not entirely certain. The stone is in the museum at Argos.

. . . ο (or ω) ν ἀν[έθηκε(?)

IV.

Found in the same place as III. Inscribed on an irregularly broken fragment 1 ft. by 8 in. in size. The height of the letters is about .5 in. In the museum at Argos.

Κόρινθος

Δυκίως

[ἀρομνάμ[ones



Possibly the stone formed the upper part of a stele.





V.

Found between the bases of the inner row of columns in Stoa C and on a level with them, at a point about one-third of the length of the stoa, measured from the west end. The inscription is on a marble block measuring 10 in. by 10 in. by 3.6 in. The letters are about .7 in. in height. There is a round hole in the top of the block 1.6 in. in diameter. Of the name of the first dedicator only a single upright bar of one letter is preserved. The stone is in the Central Museum at Athens.

Ηυβρίλας
ἀνεθέταυ

The name *Hybrilas* does not occur elsewhere, though *Hybrillos* and *Hybrilides* exist. On the suffix -*λας* see Fick, *Griech. Personennamen*, p. 123, and Pape-Benseler, *Lex.*, p. xxx.

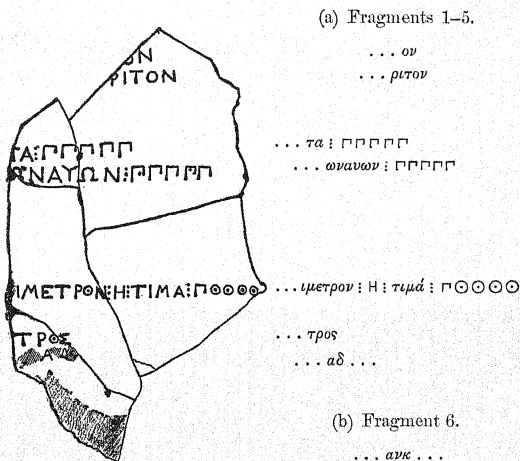
The really important feature in this inscription is the form  = B. With the exception of a bronze plaque said to be from Hermione, but apparently of doubtful provenience, the Argive inscriptions of early date give but one example of the letter B. This occurs in the proper name *Βορθαγόρας*, which with others is inscribed on a stone that is built into the foundation of the eastern tower of the ruined castle on the Larisa at Argos (*cf. IAG.* 30 = *Dialekt-Inscripfen* 3260 = Roberts, *Grk. Epig.*, 73). Here our copies give the form . But, in the light of the new form for this letter, the stone needs to be carefully examined, since, owing to the worn condition of its surface, an error might easily be possible.

The plaque from Hermione has been published by Fröhner in the *Revue Archéologique* for 1891, II, pp. 50 ff., and, with extended comment, by Robert in the *Monumenti Antichi*, 1891, pp. 593 ff. B occurs twice (lines 2, 6) in the word  ●  A. It should be observed that the upper lateral stroke is not at right angles with the vertical stroke, as is the case with the example from the Heraeum. There is, however, no essential difference in the forms. If the bronze plaque is not Argive, but represents a form of the alphabet in use at Hermione, we must suppose, as Fröhner has pointed out, that there existed there almost simultaneously two forms of the early alphabet, that of Argos (note the letter  on the bronze plaque), and a form closely allied to the Lacedaemonian (*cf. Roberts*, p. 284, and Kirchhoff, *Studien*⁴ p. 160). It is more probable that the plaque is of immediate Argive origin, and this view, to which both Fröhner and Robert incline, is now shown to be almost certainly the correct one by the inscription from the Heraeum. The resemblance of this form of *beta* to that of the letter in several of the insular alphabets (C), and in the alphabet of Megara () has been remarked by Robert, *l. c.*

VI.

Inscribed on a white fine-grained limestone, which splits with conchoidal fracture. Found in Stoa C, between the back wall

and the inner row of columns (Washington's note). Six irregularly broken fragments of the stone have been found, five of which may readily be fitted together. These measure roughly 1 ft. by 8 in., the sixth fragment 3 in. by 1 in. The height of the letters is 0.4 in. The inscription is in the Central Museum at Athens.



The inscription is extremely well cut, and the surface of the stone in excellent condition, so that the failure to discover more fragments is peculiarly to be regretted. It seems to have been an account of moneys paid out possibly for building materials. We might restore ξύλων αἰων in line 4, but the inscription is so broken away at the left that conjectural restorations are not worth much. One Argive inscription gives H = 100, Γ = 50, Θ = 10, cf. Reinach, *Traité d'Épigraphie grecque*, p. 218; Dittenberger, *Hermes*, vii, p. 62 ff., comments on the inscription, which is also published as No. 3286 in the *Dialekt-Inschr.*; Larfeld in Müller's *Handbuch*, i², pp. 541 ff. Perhaps, however, Θ = *omicron*, as

in other portions of the inscription, and signifies an obol. But how are we to read Π? If it means five or fifty drachmas in line 5, its repetition up to five places would surely be most unusual. Professor F. D. Allen has suggested to me that it may be used to designate a coin of given value (*cf.* Reinach, *Traité*, p. 217, and note 3). Professor Allen has also suggested the reading ὠνὰ ὕων in line 4, thus connecting the inscription with the purchase of sacrificial animals. Compare the sacrificial calendar from Cos, *JHS.* ix, pp. 323 ff., published also in Paton's *Corpus of Coan Inscriptions*. Line 5, however, seems to me rather to suggest the purchase of building materials. We might perhaps imagine in line 5 something that had a περίμετρον (δίμετρον or τρίμετρον seems difficult, since it involves the use of μέτρον as a linear unit) of 100, and in line 3 the ... τα might belong to some such expression as ποῖ τὰ διαστύλων θυρώματα (*cf.* lines 63-64 of the Epidauran temple-inscription).

VII.

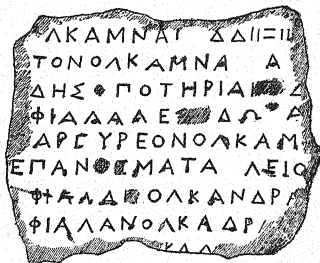
Inscribed on a much broken block of stone measuring 2 ft. 3 in. by 2 ft. by 1 ft. 3 in. (height). Found on the upper terrace just south of the remains of the earlier temple. The stone still remains near the spot where it was found.

Α Α Α Μ ι
'Α ρ τ ά μ ι

For the form see Foucart in Le Bas, *Explicat.*, No. 109a. The inscription there published reads Πρωτίων Ἀρτάμι, and is now in the museum at Argos. Foucart compares the forms Σαράπι, Ἴσι, Ἀνούβι (*cf.* *Mittheil.*, iv, p. 148, No. 508; *Dialekt-Inscr.*, 3283).

VIII.

The spot where this inscription was found is not definitely indicated in the excavators' notes. It is described as having come to light "on the surface of the south side." The stone measures 5 in. by 6 in., and is broken on all sides. The letters are not deeply cut and the squeeze is difficult to read. The height of the letters is about .3 in. The stone is in the museum at Argos.



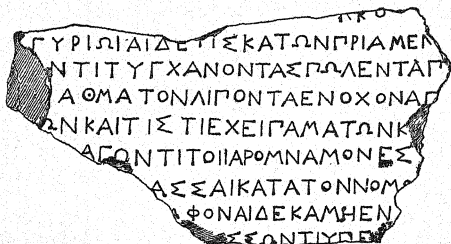
ὁ]λκὰ μναὶ ΔΔ||=||
 ... τον ὁλκὰ μνα̃ α ...
 ... δης ποτήρια κ (?) . δ ...
 φιάλα λε[ία] δω . α ...
 ἀργύρεον ὁλκὰ μ[ναὶ] (?)
 ἐπανθέματα λεῖο .
 φιάλαν ὁλκὰν δρα[χμαί] (?)
 φιάλαν ὁλκὰ δρα[χμαί] (?)
 ὁ]λκὰ δ[ραχμαί] (?)

The fragment is evidently part of an inventory of valuable objects which were stored in the temple or in some other building of the sanctuary. In line 1 the value of some object seems to be 22 minae, and perhaps 20 drachmas 2 obols; that is, if we may understand — = 10 dr. and | = 1 obol, as in the inscription which relates to the construction of the temple of Aesclepius at Epidaurus. Lines 7 and 8, however, show that the word drachma was given in full, at any rate in the case of lesser values. The space preceding the A which stands at the end of line 2 shows no trace of any letter. It would seem, then, as if the value indicated were a single mina, unless A may possibly be taken as a numeral. It is so used apparently in line 106 of the architectural inscription of the temple at Epidaurus already referred to; but, so far as I know, the letter has never been interpreted there, and it is of no help in understanding the present inscription. The A rather suggests ἀνέθηκε or ἀνάθημα in this place (*cf.* the records of the temple of Apollo at Delos *passim*, Dittenberger, *Sylloge*, 367). The termination -δης looks like the ending of a dedicator's name, but unfortunately there is no means of determining how much has been broken off at the beginning or ending of the lines. In line 3 we should expect a word expressing an attribute of ποτήρια (*e. g.*, κέδρινα, which, however, is hardly possible), but I can make no suggestion that is worth anything. In line 4, after λεία, the beginnings of a proper name seem possible. In line 6 the compound ἐπανθέματα is, so far as I know, new, if we are to take it as signifying dedicated offerings.

The use of the accusative *φιάλαν* in lines 6 and 7 has a parallel in lines 68 ff. of the records of the temple at Delos.

IX.

An irregular fragment, broken on all sides, measuring 1 ft. by 6 in. Height of letters about .4 in. The stone is in the museum at Argos. No note as to the exact spot where this inscription was found has been given me.



... νκο ...

ἀρ]γυρίῳ· αἱ δὲ τίς κα τῶν πριαμέν[ων

... ντι τυγχάνοντας πωλὲν τὰ π ...

στ]αθμὰ τὸν λιπόντα ἔνοχον ἀπ[οτίσαι

... ων καὶ τίς τι ἔχει παμάτων κ ...

ἄγωντι τοὶ ἱερομνάμονες

δίκ]ασσαι κατὰ τὸν νόμο[ν ο ...

ἄδε]λφόν· αἱ δὲ κα μὴ ἐν ...

δικά]σσωντι ὑπὲ[ρ

Enough is left of this document to make the conjecture probable that it is a portion of a record of certain specifications touching the sale or lease of some piece of property. Line 6 suggests that we may have to do with an Amphictyonic decree not unlike that published in *CIG.* 1688 = *CIA.* II, I. 545. The restoration *δίκασσαι*, in line 7, was suggested by Professor F. D. Allen. That in line 9 seems to follow from it. Noteworthy is the uncommon word *παμάτων* in line 5. We have *τὰ ππάματα* (*τὰ ἐππάματα*) in

Dialekt-Inschrift., 488, lines 163–175. Compare *ἑππασις* (Index to *Dialekt-Inschrift.*, Boötien), and the interesting compound *παματοφαγείσται* (*IAG.* 321, lines 42, 45 = *Dialekt-Inschrift.*, 1478), also the Homeric *πολυπάρμων* and Hesychius's *ἐμπάρμων*. The simple word *πάμα* has a rare literary use. (See the Thesaurus, s. v.)

X.

Inscribed on an irregularly broken fragment found just above the eastern wall of the West Building. The stone measures about 1 ft. 5 in. in height, 1 ft. 1 in. in width at the widest part, and 7 in. in thickness. The top, which is roughly hewn, has two small holes in it, 2 in. by 2 in., and 1 in. in depth. Except at the top the stone is broken off on all sides. It is in the guard's hut at the Heraeum. The letters are from .6 to .8 in. in height.



... α Φιλιστίδα

... ο(?) κόσμος ο(ορ ω) ...

το]ῦ ἔτεος α ...

τ]ῆς Φιλισ[τίδος

ἀδ]ελφός

... αι επ(?) ...

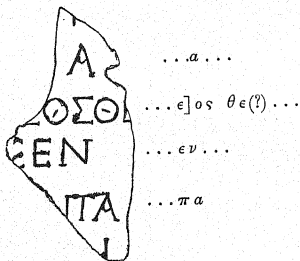
... ε(?) ...

The small holes make one think of a dedicatory offering by Philistis or her brother, but it is useless to speculate in detail about the inscription.

XI.

Inscribed on a very much broken fragment measuring roughly 9 in. by 5.4 in. The letters are about .9 in. in height. The stone is in the museum at Argos. In line 2 the fourth letter is very likely, though not quite certainly, *theta*; and indeed the

second letter of the line, so far as form goes, might be the same.
 In line 4 perhaps we should read $\iota\alpha$ instead of $\pi\alpha$.



J. R. WHEELER.

SOME HITTITE SEALS.

[PLATE XV.]

The seals to which I wish now to call attention, and which have never been published, are two cylinders and five circular seals containing Hittite inscriptions. They formed a part of my own collection, but have been transferred, since this paper was prepared, to the Metropolitan Museum in New York.¹

The first of these cylinders (Pl. XV, Fig. 1) is of copper, plated with silver, and is said to have been brought with a number of other antiquities from Haifa, in Syria. I am indebted to Professor Ogden N. Rood, of Columbia College, for the determination of the material; and he informs me that it is to the fact that it is thus composed of two layers of metal, silver on copper, that we are indebted for the excellent preservation of the outer silver face, the galvanic action having preserved the silver at the expense of the copper. It was made of a flat rectangular piece of metal, bent around so as to bring the opposite edges in juxtaposition, thus forming a cylinder; but these edges are not soldered together. The cylinder is 21 millimetres in length by 9 millimetres in diameter. At each end is a rope-pattern enclosed in border lines. Between them, occupying the body of the cylinder, is seen a personage with what appear to be wings from his head; but more probably the wings belong to a winged solar disk over his head, the central disk having been reduced to a mere dot, from lack of room. The head is bare or with a close cap. He wears a long, loose, open robe, and holds one hand extended, and

¹ I may say that the collection of Oriental seals, chiefly cylinders, belonging to the Metropolitan Museum now equals in number that of any public museum in Europe, and is exceeded in value only by the magnificent collection of the British Museum. It is hoped that the Metropolitan Museum will soon publish not only a hand-book but an illustrated catalogue with copies of all the seals photographically reproduced and classified, thus carrying on the work done in this department by M. Menant in his catalogue of the great private collection of M. de Clercq.

in the other holds what appears like a sort of *lituus*, with the lower end bent back and up, as is common in Hittite sculpture. Facing this personage, but separated by two columns of Hittite hieroglyphics, is a figure in a close cap and a short robe, with one hand lifted and the other holding a mace over his shoulder, the top of which is a circle divided in the middle by the handle of the mace. Back to the latter, and with a star between them, is a figure in a high Phrygian hat, a long robe, and with both hands extended in front. The toes of the figures are generally tipped up. Behind the principal figure, surmounted by the winged disk, are a bird, a triangle, and a second small mark beside it—perhaps another triangle. In front of him are the two vertical lines of inscription, three Hittite characters in each column, unless one of these, over the hand of the person or deity, be an object held in his hand. One of the characters reminds us much of the Babylonian character for Haran, and suggests that it may be the ideograph for that city.

While I do not think it worth while to try to translate or transliterate the inscription, the two lines in front and the one behind the principal figure, still, the presence of the characters distinctly defines the Hittite style of a considerable family of cylinders which, for other reasons, we have been in the habit of calling Hittite. Most characteristic of all is the rope-pattern. The tall Phrygian cap and the tipped up toes are familiar Hittite characteristics. There is a considerable body of hematite cylinders of about this size and type which these written characters help us to designate more positively as Hittite, although it has often seemed doubtful whether we should not call them Syrian or Phœnician. Indeed, the Hittites, coming down from the neighborhood of Armenia into Syria, and occupying the whole of Northern Syria from the Euphrates nearly or quite to the coast, entered into a region which had already a well-developed Phœnician or Canaanite culture, and probably bringing at first no indigenous culture with them they adopted the art of the country they had conquered; so that it may never be possible, in Northern Syria, to separate their art from the native Phœnician and Syrian art, whatever independent developments they may have later made in Asia Minor.

The size and shape of this silver cylinder, and of the fine class of hematite cylinders which resemble it, found in Syria, are about the same as in the Babylonian cylinders of about 2000-1500 B. C. This inclines us to date them back to a period of considerable antiquity; especially as about 1500-1400 B. C. a much larger cylinder came into vogue with the Cassite dynasty, and similar large cylinders were in use in Assyria. These small cylinders are characterized by an even more minute and delicate workmanship and a more crowded composition than is found on the corresponding Babylonian cylinders; and, like them, they are wrought free hand with the corundum point, and not with the revolving disk, which probably did not come into general use much, if any, before 1000 B. C.

The other cylinder of which I speak (Pl. XV, Fig. 2) is in much less perfect condition. It is a large cylinder of black serpentine, and was obtained in the neighborhood of Oorfa. It is 53 millimetres in length and 15 millimetres in diameter. Although considerably battered and worn, it is easy not only to make out that there are five lines of Hittite characters covering the surface, but also to recognize many of the several characters. They are arranged in the way usual in Hittite inscriptions, two characters often appearing grouped one over the other. One of the five lines is wrong side up, as compared with the others. Several of the well known Hittite signs can be repeatedly detected; but it is not possible, I think, to recover more than two or three consecutive characters anywhere, so that it is not likely to be of any value as a text.

But it is of considerable value because of its relationship in shape and material to a large class of these large, deeply-cut, soft black serpentine cylinders which I have been in the habit, with others, of calling Assyrian, but with a great deal of doubt whether they are purely Assyrian. These are the cylinders which introduce the winged disk and the sacred tree into Assyrian art, elements unknown to Babylonian art before 1500 B. C.; and which especially delight in the fight between Bel and the Dragon, or other forms of the contest between a hero and a sphinx or other foe. It is evident that in the time of the Assyrian empire the art of the country had somehow acquired these important ele-

ments of mythology not familiar to the early Babylonian empire; and it is not easy to discover evidence of whence they came, much as we might conjecture in certain particulars. Thus it is certain that the winged solar disk must have originally come from Egypt by way of the Egyptian conquests in Palestine and Syria, though considerably altered, and although the winged disk of Aten (Adonis?) was carried back in a new type into Egypt from the Euphrates by the heretic kings.

If, now, as this Hittite cylinder seems to indicate, we can refer these large serpentine cylinders—so peculiar in size, shape and material as well as design, seldom with inscriptions—to the Hittite territory, we are on the line of the connection with Egypt. We well know how close was the connection between the Egyptian and the Hittite kingdoms in the time of the XVIII and XIX dynasties, and we may be certain that it was about this time that Western Asia felt most markedly the influence of Egypt, the influence previously being chiefly Babylonian. I am inclined to think that the winged disk was brought into Asia perhaps somewhat before the time of Thothmes II, and before the Hittite invasion of Syria; that it was adopted first by the Phœnician or Canaanite civilized tribes, then by the people of Nahrina, to whom it became a special and supreme god by a sort of religious revolution which modified considerably the idea and form of the winged disk as it had been known in Egypt; and that it was then adopted by the Hittites on their occupation of the country. When the iconoclastic heretic king Khuen-aten, under the influence of his alliance with Nahrina, made it his sole divinity, its identity with the old and orthodox Egyptian form had been nearly or quite lost. From the Mesopotamian peoples, rather than from the Hittites or directly from the Egyptians, the Assyrians accepted the disk and the sacred tree, and probably the contest between Bel Marduk and the Dragon. These latter were both drawn from the Babylonian mythology, though not from Babylonian art; and we must remember that the Nahrina kingdom is really older than the Assyrian.

This would not make this large cylinder with the Hittite inscription as old as the smaller silver cylinder, and the fine hematite cylinders of which I have spoken. Indeed if, as seems

probable, the larger type was introduced by the Cassite dynasty about the time of King Burnaburiash, then we may put these large serpentine cylinders as early as 1300 or 1200 B. C.; and from these large Mesopotamian or Hittite cylinders were copied the later characteristic large chalcedony cylinders which we are able to refer confidently to Assyria.

With these two cylinders, the first ever found with unquestionable Hittite inscriptions, I would give copies of several disk-shaped seals, engraved on both sides with Hittite characters (Pl. XV, Fig. 3), obtained by me from Constantinople. These seals are similar to those belonging to Schlumberger (*Revue Archéologique*, Dec. 1882), and to the silver seal from Bor (published by Mr. Thomas Tyler in the *Academy* of Jan. 14, 1893), which is now in the Ashmolean Museum, Oxford. They are made of serpentine, both black and red, and are reported to have been brought to Constantinople with some Cappadocian tablets.

WILLIAM HAYES WARD.

NOTES.

HEINRICH VON BRUNN. ✠

[PLATE XVI.]

The study of classical archæology has lost one of its brightest lights by the death at Josephsthal, in the Bavarian Alps, July 23, of Professor Heinrich von Brunn, who had latterly come to be looked upon as a sort of dean of the corps of professional archæologists. For the honorary epithet of *Altmeister*, as he was commonly saluted at home, was not merely a tribute of respect for the surviving contemporary and associate of such old pathfinders in archæological science as Otfried Müller and Eduard Gerhard; it involved recognition of his continued authority and supremacy in the special form of historical and æsthetic criticism of the concrete remains of antiquity which he made his province. Outside of archæological circles his name was scarcely known, except to a part of the magazine-reading public of Germany, which had learned to look forward to his occasional brilliant essays in the *Deutsche Rundschau* or in Westermann's *Illustrierte Monatshefte* as thoroughly original discussions in polished literary form, absolutely free from the taint of popularism. They differed, in fact, from the papers he read at philological conventions, or in the sixties before the plenary assemblies of the membership of the international Archæological Institute at Rome, only as written productions do from oral deliverances. A much larger number of these essays, all models of their kind, deserves republication in collected form, and translation into other languages besides the original Italian or German, than he embraced in the volume of 110 pages octavo entitled *Griechische Götterideale*, issued in 1893 (*Verlagsanstalt für Kunst u. Wissenschaft*, Munich).

Brunn was born at Wörlitz in the principality of Anhalt-Dessau in 1822, and attended college at Zerbst in that neighborhood. In 1839 he matriculated at the Rhenish university of Bonn, attracted thither by the reputation of Welcker and Ritschl. At that time doctors of philosophy were excused from military service, so that after taking his degree in 1843 with a semi-philological, semi-archæological disser-

tation on the sources of Pliny's account of the history of ancient art, young Brunn was free to follow the inclination that drew him Rome-wards. The political upheaval of the Eternal City in 1848-49 converted him for a brief period into a war correspondent. In 1853 his indefatigable ardor in collecting epigraphic material in Southern Italy for the great *Corpus Inscriptionum Latinarum* earned him the friendly nickname of Hercules Saxanus from the editor, Ritschl. He had just completed one volume of the work which established his literary reputation, *Geschichte der griechischen Künstler* (Braunschweig 1853, and Stuttgart 1859; an unaltered reprint of the whole work was issued in 1884). It cannot vie for readableness with the numerous illustrated histories and manuals of ancient art whose authors have used Brunn's work for their foundation. Feeble readers of German will do well to let it alone. The author's plan was to combine a critical presentation of the traditional testimony in regard to the Grecian sculptors, engravers, painters, and architects, with an attempt to make the literary evidence the skeleton of a new *imago artis Græcæ* such as could be conceived in the internal vision of one thoroughly acquainted with antique art in its concrete monuments. But his almost excessively rigid self-control, foreshadowed in the bold wording of a thesis he defended at Bonn in 1843—"In a critical discussion I would rather err methodically than hit upon truth without method"—preserved him from the indulgence in vain rhetoric that renders Adolph Stahr's *Torso*, a work of somewhat similar aim, so nearly worthless. He excluded extant works of antique art from consideration except in the few instances where their authorship is attested with certainty. It was his purpose, but partly completed after an interval of forty years, to supplement this collection of antique testimony by a *Geschichte der griechischen Kunst* (Part I, Munich, 1893). His own formulation expresses his idea in a form enriched by his plastic habit of thought: "As the forms of a living body can only develop to fullness of beauty when they are supported by a flawless osseous structure, although this remains hidden to the eye, so the history of art will mature to real perfection only if the history of the artists supplies it with a foundation, upon which the analysis of the monuments can erect its structure in the consciousness of absolute security."

After an interval of two years spent in the service of the University of Bonn (1854-56), Brunn returned to Rome, to be associated with Henzen, the distinguished epigraphist, in the direction of the Archaeological Institute. Michaëlis, in his history of that scientific station, to which Germany owes so large a share of her present preëminence in classical archaeology, dates the revival of the Institute, after protracted lethargy, from the first meeting conducted by Henzen and Brunn on February 27, 1857: "Not only was there a livelier participation

than during the late years, but it soon rose to a more gratifying activity than ever before" (Michaëlis, p. 14, German ed.). Without this revival of efficiency and interest, its friends could hardly have succeeded, as indeed they did not until 1860, in obtaining rank and support for the Institute as an element in the scholastic establishment of the Prussian Government. The variety and fulness of the archaeological matter published during the next few years in the *Annali* and other papers of the Institute, under Brunn's editorship, indicate his activity as much as his own contributions.

His Roman secretaryship was exchanged in 1865, for the chair of archaeology at the University of Munich, which he filled till yesterday. The opening of his Bavarian career was not altogether auspicious, nor has the visible fruit of his twenty-nine years of activity in Munich as professor, curator, and publicist met the high expectations which could be legitimately conceived then. One of his first duties was the safeguarding from the contemplated Prussian invasion of the collections of antiques which the enthusiasm of King Louis I had created and raised to the second rank in Europe. The ex-king died early in 1868. King Louis II took no personal interest either in the galleries or in the University founded by his grandfather. The development of the natural sciences taxed the educational budget of the kingdom to the utmost; a Royal School of Technology was just founding. Berlin loomed up as the coming German capital. After completing a scholarly catalogue of the sculpture gallery (1868) and another of the antique painted vases, of which he was appointed curator the same year, Brunn found little to do in the way of collection or classification of new antiques. He might almost as well have taught in Göttingen or Königsberg. His prelude to Schliemann's memorable discoveries in the Troad and Argolis (*Die Kunst bei Homer*, Munich, 1868) could have been written anywhere. His publication of the Etruscan sarcophagus-reliefs (*I rilievi delle urne etrusche*, Vol. I, Rome, 1870, since continued by Körte) was the fruit of observations made in Italy. The Bavarian inertia in which he was plunged affected him. He should have gone to Greece. His unfamiliarity with that country tended to put him out of touch with his colleagues of the Berlin directory of the now Imperial German Institute. *Infandum, regina, iubes renovare dolorem* was his answer, in the writer's hearing, to a Greek pupil asking his reason for not visiting Greece. But he hastened to add that he found his rare visits to Italy so disquieting, by the wealth of new impressions they brought, that he feared a journey to Olympia and Athens would dislocate his history of Greek art altogether. Every year he expended an amount of labor on his classroom discussions of the subject which would have sufficed a less sen-

sitive conscience for the publication of a book. Perhaps he did not feel the personal need to write his account of Greek art that he did to sift and classify the testimony which was the basis of his *History of the Greek Artists*. To his mind a properly classified collection of antiques, in the original or in the best available reproductions, was a sufficient history of the evolution of Greek art. His contempt for the sentimentality of Ruskin's opposition to the formation of a great collection of casts in London was unbounded. He arranged his own collection, embracing seven hundred and thirty plaster casts, in a series of chambers extending in one straight line, and bare of any architectural or decorative adjuncts.

Swift to appreciate the scientific utility of the modern processes of photographic reproduction, Brunn recently secured the coöperation of an enterprising publisher, Friedrich Bruckmann, for the issue of a series of six hundred magnificent photographic prints of the most remarkable among the extant store of antique sculptures from widely scattered originals. Of this veritable library museum Bruckmann's business successor, the *Verlagsanstalt für Kunst und Wissenschaft*, is now bringing out the fourth hundred. A similar series of Greek and Roman Portraits was also begun. It is gratifying to be assured that both publications will be carried to completion by Brunn's co-editor, Dr. Paul Arndt. They reflect a degree of credit on the self-sacrificing editors and publishers that should in some measure compensate them for pecuniary loss.

A number of the papers printed in the transactions of the Royal Academy of Munich (*Probleme zur Geschichte der griechischen Vasenmalerei; Paionios und die nordgriechische Kunst; Die Skulpturen von Olympia; Die Skulpturen von Pergamon, etc.*) were openly or covertly controversial. The Olympian marbles, which their Berlin discoverers were at first disposed to associate too closely, though apologetically, with the Attic school of Pheidias, will never recover from the epithet of veal-fed which he applied to their flabby forms by contrast with the beef-fed robustness of a figure like the Theseus of the Parthenon. The strictures which the discoverer of the Pergamene origin of the "Dying Gladiator" of the Capitoline Museum and a series of kindred sculptures in Rome, Naples and Venice, years before the excavation of Pergamon at the expense of the Prussian government, was entitled to pass upon the style of the Pergamene marbles acquired by the Berlin Museum met the same respectful attention. His early identification of a female statue in the Munich Glyptothek as a copy of the allegorical group of Peace and Wealth by Kephisodotos of Athens, the father of Praxiteles, gave him an equal right to speak authoritatively in regard to the place of the Hermes of Olympia

among the known works of the latter master. If Brunn is right, the Hermes was an early work of Praxiteles, done at the time when he was associated with his father in the execution of orders for several Arcadian cities. It is possible that in this view, as in his personal conviction that the original of Praxiteles' "marble faun" is preserved in a mutilated torso of the Louvre Museum, and sundry other contentions of the same sort, Brunn may have erred. His sense of evolutionary relations and his vast knowledge of Hellenic modes of plastic thought raise his own work to the level he assigned to Winckelmann's: his mistakes are more instructive than the right guesses of others. Brunn was rather fond of insisting on his own analytic method as against the deductive and often utterly false conclusions of metaphysical æsthetics, as well as against the excessive reliance of many archaeologists on the comparative process. In truth, his position was the very simple one, that an artistic idea cannot be disintegrated from its material and sensible vehicle, but that, given a sufficient familiarity with the vocabulary, grammar, and rhetoric of the language in which formative art must express itself, it is possible for persistent study to extract from a given work all that the artist consciously or unconsciously put into it. It is this conviction—first acquired and apprehended in its bearing on his life-work while attempting to master the import of the Hera Farnese bust at Naples in 1844—that upheld Professor Brunn for fifty years in his endeavor to substitute scientific investigation of the objective laws governing artistic creation for the flowery allurements of subjective criticism on the one hand, and the restriction of scientific inquiry to the dry bones of archaeological information on the other. And this is what his portrait bust will stand for, which was sculptured by Ruemann from a block of Pentelic marble presented by the Greek government on the occasion of the fiftieth anniversary of his Bonn doctorate (March 20, 1893), and is now set up in the hall of the Palazzo Caffarelli on the Capitoline Mount. The photograph of it (PLATE XVI, taken from *Münchener Porträts*, No. 24, *Verlagsanstalt für Kunst u. Wissenschaft*, Munich) reveals, a little more accentuatedly perhaps than the writer's recollection of Brunn's real features, the union of the habit of keen observation, leaving its mark especially on the upper half of the full Teutonic face, with other features denoting a strong imagination held in rigid subjection to the will. Were it not for the romantic length of flowing curls in which the face is framed, it could be taken for the head of a statesman rather than of a scholar. It is interesting to compare this portrait in stone with an early likeness of Brunn the student, dated 1841, and representing him in the frogged velvet tunic and loose shirt affected by the patriotic youth of the period. The pure unclouded brow and thought-

ful young features are not without promise of what their owner was to achieve in later years.

This notice would be most incomplete without an allusion to the amiability of character which made Brunn take a special delight in personal intercourse with the young, whose affection he always won, without effort, as surely as he obtained what he used to call their physiognomic response. Many for whose quickened eyes he had read new meaning in the august faces of Greek deities have a pleasant recollection of his own benign countenance, as it beamed through a nimbus of social tobacco smoke, in the weekly reunions around his study-table. In his last illness, as indeed at times before when in less robust condition than usual, this skilful artist in visualization and language showed symptoms of loss of memory and aphasia, due to softening of the brain. The quiescent traveler's instinct revived in him, and he would often declare his intention of spending the night at some forgotten way-station of mail-coach days in Italy, or inform his friends that he had just returned from an extensive journey in pursuit of epigraphic or archæologic information. At last, his powerful frame succumbed without suffering, and allowed a mind that had so long navigated the enchanted seas of the past to weigh anchor and spread sail *eis φάσιν, ἐπὶ ναυσὶν ἑσχατος ὁρμός*: "to that vast shore that skirts the furthest sea."

ALFRED EMERSON.

H. G. LOLLING. ✠

Classical Archæology suffered an irreparable loss in the death of Dr. Lolling, which ensued, after a brief illness, on Feb. 22, 1894. His busy life from the age of twenty-four to his death (when he was forty-six years old) had been spent in Greece; and he had become the first authority on the topography of Greece, combining in a remarkable degree the knowledge of its past and its present.

Perhaps not more than one in five of the travellers who use Baedeker's *Greece* realize or even notice that it is principally the work of Lolling. It was in the family of Carl Wilberg (the publisher and bookseller, and at the same time German consul in Athens) that Baedeker in 1876 met Lolling, and recognized in him the man to prepare his projected handbook. Lolling since his arrival in Athens had been serving as private tutor in the Wilberg family, and was devoting his spare hours to a restless study of every nook and corner of Attica.

In the execution of the responsible work laid upon him by Baedeker, he now travelled over the rest of Greece with like thoroughness;

and so full were his results that his manuscript had to be cut down one-half to make it fit the proper proportions of a guide-book. It is well known, however, that Baedeker is no mere traveller's guide, but a proper text-book of the topography, monuments and history of Greece.

Lolling was selected, almost as a matter of course, to prepare the section in Iwan Müller's Handbook of Classical Antiquity treating of Greek geography and topography, the second edition of which he was preparing at the time of his death. But the limits of this work gave him no room for inserting much of the material crowded out of Baedeker. Specimens of this material have, however, reached the light in the *Mittheilungen des deutschen archäologischen Instituts* and in his essay on *Die Meerenge von Salamis*, which begins the volume brought as a tribute to Ernst Curtius, on the occasion of his seventieth birthday in 1884, by his pupils and admirers.

The other main branch of Lolling's work, in which his merits were almost equally conspicuous, was epigraphy. The numbers of the *Mittheilungen* and of the *Delion* bear witness to this. The putting together and editing of the great *Hekatompedon* inscription from the Acropolis was a notable example of his patience, and, we may almost say, his genius in this field. The volume which has appeared of the Inscriptions of Northern Greece, as one sees by "exscripsit Lolling" appended to most of the numbers, was largely the fruit of his labor, and yet his name does not appear on the title page. Probably no man who has ever appeared on the scenes of the archaeological world in Athens has shown less desire to assert his claims to archaeological property, or to push himself to the front in any way. He was retiring and almost shy as far as society was concerned. He never "made calls." Some called him "hermit." But he was very agreeable and genial in the company of his friends.

Of course, such a man did not fail to secure recognition of a public character. His promotion in the German Institute, of which he was for several years librarian and the Director's right-hand man, rendering invaluable service, was perhaps not so rapid as some expected. But this was because Germany sent giants into the field. But the Greek Government seized him in 1887, and made him curator of the Museum of Inscriptions. In 1893 he was made corresponding member of the Prussian Academy, and a few days before his death he was decorated with the Greek Order of the Redeemer.

His last days were extremely busy ones. It was his task to create the museum of inscriptions of which he was to be the curator. He had to arrange and edit the great yield of Acropolis inscriptions from excavations of recent years,—a work which he had nearly completed.

But the general task of keeping up with inscriptions now constantly pouring in is like "climbing up the ever climbing wave." The third edition of Baedeker's *Greece* suffered under no greater disadvantage than that arising from the fact that Lolling was too busy to travel again over Greece, although he did find time to revise the work. By this severe pressure of work a longed-for visit to his Friesland home, after twenty-two years of absence, was also precluded.

And yet no man was more generous and even prodigal of his time when one asked him for information. Often he has left his manuscript to show me inscription after inscription with discursive talk that almost made me forget how busy he was. He had declared his intention of at least going over to Eretria with me in the spring to assist in locating the temple of Artemis Amarysia, a subject in which he was much interested. But before that time came we had laid him to rest in Attic earth.

It was evident that the desire to travel was with him a sort of passion, as with Odysseus, and it cost him much to forego this pleasure. *Man muss sich darein fügen*, a phrase which he once used to me in speaking of this deprivation, is perhaps an adequate motto to express the substance of his life of patient unselfishness.

RUFUS B. RICHARDSON.

REVIEWS AND NOTICES OF BOOKS.

PAUL KRETSCHMER. *Die Griechischen Vaseninschriften ihrer Sprache nach untersucht.* 8vo, pp. viii, 251. Gütersloh, C. Bertelsmann, 1894.

The work which Meisterhans did some years ago for Attic lapidary inscriptions has now been done by Kretschmer for the corresponding field of inscriptions upon pottery. The subject is naturally of much less importance because of the narrow compass of the material at our disposal, which is confined chiefly to proper names; but a great deal of grammatical interest can be extracted from proper names, and the grammarian cannot now afford to ignore this new field so well exploited for him. Meisterhans confined himself to Attic inscriptions; the smaller compass to be treated by Kretschmer has enabled him to include all inscribed vases, and to add details that are of value to the archaeologist as well as to the grammarian and epigraphist. Beyond the limit of Attic vases, the number of those inscribed is not very large. Only one is reckoned among those of the Rhodian style, the Euphorbos plate of the British Museum, which is now adjudicated from Rhodes and assigned to Argos, with the conclusion that the Camirus style had its origin from the Argive district. It is to be hoped that the excavations of our Athens School at the Heraeum will ultimately solve this question. Of the so-called Cyrenæan class only one is inscribed, and to the Ionian no more than two or three can be assigned with any confidence. Of Corinthian, on the other hand, Kretschmer catalogues 45, of Chalcidian 12, Boeotian 4, Ceian (?) 1, and one of Sicyonian manufacture, with a second made in Athens but bearing a Sicyonian inscription scratched in by the owner, who was under the influence, our author thinks, of his Athenian habitat, as betrayed by the added ν of $\epsilon\delta\omega\kappa\epsilon\nu$.

In general the inscriptions used in this volume are chiefly those which were painted on by the potters before the last burning. Such as have been inscribed with a point are utilized only so far as the evidence goes to show that they have originated from the potters themselves, and not from the later possessors. The object of this exclusion is to base the results of the work purely upon the language of a single class, the potters and painters, that it may represent the speech of the people undefiled by official phraseology or literary rules. Thus our author claims that we come here into closer touch with the Athenian

workman in his blouse with his paintbrush in his hand (as we see him upon one of the vases) than even in Aristophanes or on the marbles. Kretschmer assumes that these men in general wrote as they spoke, and that the peculiarities in speech exhibited by them may be accepted as the folk-speech, although they have been usually attributed to the ignorance, the mistakes, and the carelessness of the potters. But he maintains that, where the same distinctive forms occur again and again, this reason is not sufficient, especially as they are met with in cases where the writing has been done with great care and beauty, and thus forms a part of the ornament of the vase as a whole, and they occur also at times in lapidary inscriptions: and he utters the warning that hypercriticism is as unscientific as lack of criticism, and quite as unfruitful. Hence, after obvious instances of carelessness and miswriting have been excluded, and some left to one side as admitting of doubt, our author claims that his material performs for the speech of the lower classes in Athens the service which the papyri of the Serapeum have done for the popular speech of the Ptolemaic Greeks. This differs from that of literature and official documents not so much in broad traits as in numberless little things. Here only can we learn that the common Athenian habitually said *δουλευτός*, occasionally *θηρός* and *παῦς* (*παῖς*), *πῖε* (*πίε*).

It is pretty clear that the potter was but half versed in the rules of literary writing, although his social position cannot have been always a subordinate one. The wealth acquired in the art is attested by the offerings on the Acropolis, and by the immense numbers of the wares discovered in foreign countries, especially Italy. The rich Hyperbolus is an example of a potter whose language was open to comic criticism, and he was even taunted with foreign extraction. This charge cannot be brought against a very considerable part of the potters whose signatures appear on vases, as their names are either such as are known to be genuinely Attic, or bear at least no traces of a foreign stamp, as Aeschines, Andocides, etc. There are others, however, with a distinctly foreign color, as Gauris, Douris, Myspius, Oltos, etc. Phintias betrays a Sicilian or Italian origin, though he has once written his name in its proper Attic form, Philtias. Amasis indicates a knowledge of Egypt on the part of the name-giver, if not Egyptian derivation. Brygos was probably Thracian, Sikanos and Sikelos of Sicilian birth. Hence this class belonged either to the *mætics* or to the slave population. It is not surprising, therefore, that unattic forms are occasionally met with. These are chiefly Dorian; the Ionic are almost wholly lacking on Attic vases. The former occur especially in mythic names, as *Οιδυπόδας*, and such as may be found in the lyric parts of tragedy. The Ionising tendency of tragedy may be seen in a few cases of *σσ* for *ττ*, as *Ὀλυσσένε*, *Φερρέφασσα*, *Κίσσος*, *Κισσώ*. Here may be added the single form

térapa noted by Meisterhans. It appears, however, on a vase of Exekias, whose Atticism is otherwise under suspicion from his use of the unattic form Ἰόλαος. Doric endings in the names of persons, as Nikondas, are not uncommon in literary Attic. Side by side with the two cases of F in Attic inscriptions is to be ranged the form EIOLEOΣ for FIOLEOΣ on a black-figured vase of the British Museum, otherwise pure Attic.

As occasionally on the marbles, H is found for the aspirated E-sound, five times for ε, five times for η on Attic vases, and once on a Corinthian. Some cases of the Argive *lambda* (Κ) also occur, but they may be accidental. As compared with the lapidary forms, it is further worthy of notice that the *theta* with a point (Θ) is almost always employed, even in the first half of the sixth century, instead of the cross-bar *theta* (⊕), as is the case on coins as well. The alphabetic changes in the fifth century are also of interest to the epigraphist. The introduction of Ionic letters occasionally on the marbles in unofficial inscriptions during this period was commented upon some years ago by Koehler. Kretschmer gives a table comprising the results from forty-two vases of the red-figured style, to illustrate this feature. From this table it appears that certain Ionic letters became prevalent before others. Apart from ξ, Ξ, Ξ, and Υ became established first, and on no vase bearing Ionic letters do the Attic Xξ, Φξ, occur. This no doubt was dictated by convenience. Not much later Γ and Λ entered, which must naturally coincide. The vowel H comes latest, and throughout the table in no instance does it appear without E (=η), and three times with H as aspirate, never with L: while ϗ is found with E (=η) several times and with L once. From the occurrence of ϗ upon the roll in the hand of the pupil in that beautiful school-room scene of the *Doris* vase in the Berlin Museum, our author concludes that even non-Ionic literature (*Æolic* in this case) was at that time ("before 480") written in the Ionic alphabet, as already conjectured by Wilamowitz. The use of ϗ instead of O in the transition period is regarded by Kretschmer as the result of a natural confusion, and not attributable to the Thasian-Parian mode of writing under the influence of Polygnotus, as has been often assumed; and he appeals to the marbles for support (*Mith. Athen.* x, 363ff., 378). Before dismissing this subject, it may not be amiss to add that the spurious diphthong -ou is written several times in full in the sixth and fifth centuries on Attic vases, though only once on the marbles.

In the difficult question involved in the dating of Attic vases, Kretschmer takes advanced ground. He assigns a few inscribed examples to the seventh century, the most archaic of the black-figured type to the first half of the sixth century, and the more advanced to the latter half, thus coinciding in part with the earlier specimens of

the red-figured. This style must have not merely begun before 480 B. C., but have advanced so far in technic that a good part of its development must have preceded that date. The oldest masters united the black and red styles, as Andocides, Pamphaios, Hischylus, Epictetus, etc. Somewhat younger were Cachrylion, Euphronius, Oltas, Sosias, Duris, Hieron, Brygos, etc., whose cups may be placed between 500 and 480. Accordingly, the so-called "beautiful style" succeeds this period, and its inscriptions are characterized by the intermixture of Ionic letters. Vases whose alphabet is purely Ionic cannot be definitely dated, but must reach far into the fourth century.

It is in the early attribution of the "severe style" of Euphronius and his compeers, before 480, and the corresponding elevation of the succeeding style, that Kretschmer's dates go most strongly counter to the views of many. Undoubtedly it is too strict to say that, because a fragment of a vase of Hieron has been found in the "Persian Stratum," his activity was not prolonged beyond the destruction of the Acropolis; yet these dates, taken somewhat more laxly, recommend themselves from one point of view, at all events. The development of style from the archaic in vases is thus brought into better harmony with that of sculpture, and we are not compelled to ask ourselves so seriously why it was that the more facile art of painting lagged so far behind in the evolution of the fifth century. This has always been a difficulty with me, which none of the attempted explanations have satisfied.

It must be confessed that the impossibility of fixing satisfactory dates in the field of vases adds to the disadvantages of scantiness of material, when we compare this work with that of Meisterhans; yet neither of these vitiates, though they diminish, the value of the results.

Montreux, August 29th, 1894.

A. C. MERRIAM.

HEINRICH BRUNN. *Griechische Kunstgeschichte. Erstes Buch. Die Anfänge und die älteste decorative Kunst.* 8vo, pp. x, 185. Verlagsanstalt für Kunst und Wissenschaft. München, 1893.

As the last work of the venerable Brunn this little volume has a special interest. It is the first section of a general history of Greek art, a history which, if completed, will necessarily be of wide influence and importance. For whatever Brunn undertook was in his estimation worth doing well. More than twenty years ago he began this history, when the rapid succession of excavations in Greece bringing to light an abundance of new material forced him either to abandon the enterprise or to modify his plan. He adopted the latter course. No one, he declares, is yet in a position to write a complete history of Greek art. So he attempts to lay the foundation, to reach the point

of view which will render future labor more fruitful. It is to be hoped that the remaining sections of the work were sufficiently far advanced to enable his literary executor, Dr. Paul Arndt, to bring them out in due season.

The section before us constitutes what he calls Book I, and is divided into four chapters: *The art of the pre-Homeric period; The art of the Homeric period; The opposition of Hellenic to foreign influences; The strengthening of the Hellenic spirit.*

In the first chapter he treats of Cyclopean architecture, from a constructive and decorative point of view; then of the Mycenæan stage of civilization, and finally of the vases of the geometric and Dipylon style. He finds here an art of prosaic character, without mythologic content; steeped with foreign influences, but nevertheless suggestive of later Greek methods. Thus the Vaphio vases are compared to the folk-songs which may have preceded and prepared the way for the more artistic Homeric epics. And in the Dipylon vases he sees a new principle in decoration, compositions which are adapted to particular spaces and express intellectual conceptions. *In the second chapter* he treats of the art of the Homeric period, assuming that Homer's poems reflect the art of his own time. The material for this chapter is furnished less by the monuments than by literary evidence. He describes Homer's shield of Achilles and then Hesiod's more complicated shield of Herakles. A similar art is reflected in the *situlæ* from Bologna. This art he recognizes as oriental material formulated by Greek method. *In the third chapter* he seeks to build up from the monuments a picture of Homeric art similar to that which the Mycenæan objects had offered for pre-Homeric art. These objects he finds in the shields from the Zeus-grotto in Krete, in the contents of the Regulini-Galassi tomb at Caere, and in the paterae from Cyprus, Magna Graecia, and Assyria. All of these objects reflect the art pictured by Homer, and are, in Brunn's estimation, more truly Greek than Phœnician. More interesting still is it to find him picturing a reflex influence of Greek upon Assyrian art, in the later forms of which he recognizes Greek modes of composition and the Greek love of nature. *In the final chapter* he traces the growth of the Dipylon style in the ceramics of Melos, Thera, and Rhodes, and the general development of the Greek principles of composition and poetic treatment from the painted pottery of Rhodes and Naukratis to that of Corinth and the celebrated François vase. The chest of Kypselos at Olympia and the throne of Apollo at Amyklai illustrate the extreme development of the principles of Homeric art, from which the François vase, somewhat later in date, already exhibits a reaction. This change illustrates the beginning of a new direction in the current of Greek art. A. M.

ARCHÆOLOGICAL NEWS.

SUMMARY OF RECENT DISCOVERIES AND INVESTIGATIONS.*

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AFRICA.

EGYPT.

THE PROPORTIONS OF THE PYRAMIDS.—The above question is studied from the point of certain Egyptian texts which give the proportions of pyramids of various sizes, by Lud. Borchardt in the *Zeit. f. Ägypt. Spr. u. Alterthumsw.*, 1894, 1, under the title *Wie wurden die Böschungen der Pyramiden bestimmt?* "How was the slope of the pyramids determined?" Here is an example of the reckonings in a translation of the original:

"Example of the computation of a pyramid. The *Wh³-ibt* is 360, the relative *Pr-m-ws* is 250. Let me know what is its *Skd*. Take the half of 360: that is 180. Divide with 250 in 180: this makes $\frac{1}{2} + \frac{1}{5} + \frac{1}{6}$ of an ell. One ell has 7 spans. Multiply by 7. Result: its *Skd* is $5\frac{1}{3}$ spans."

Of the technical terms, *Wh³-ibt* and *enti* belong to the ground-plan ("die *Wh³-ibt* und *enti* entsprechenden Zahlen stehen an den Enden der Grundkanten") while *Pr-m-ws* and *K³y-n-hrw* belong to the elevation ("die auf *Pr-m-ws* und *K³y-n-hrw* bezüglichen an den oberen Enden der dargestellten Pyramiden"). Finally, the term *Skd* is extremely important: "Es wird zuerst der Quotient aus den Massen der halben Grundkante und der Höhe gebildet, und der erhaltene

* Henceforth the news from the Far East—from China, Japan, Corea, Thibet, Hindustan, etc.—will be omitted. The reasons will be evident. Those countries are largely outside the civilization in which we are interested, and the increase in material to be handled has made this retrenchment necessary, in view of the limits of the JOURNAL.—A. L. F., JR.

Bruch dann unter Zugrundelegung der Elle als Einheit in Bruchtheile der Elle d. h. in Spannen umgerechnet. Die so erhaltene Spannanzahl ist dann der *Skd*, etc. Die Definition für den *Skd* wird also lauten: "Der *Skd* ist die Zahl, welche angiebt, um wie viel Spannen die Seitenfläche einer Pyramide auf 1 Elle Steigung vom Loth abweicht," or briefly *Skd* = "slope."

This definition being tested by its application to the text measurements given in the article, it is found that the results correspond with actual monuments, such as the south pyramid at Dahshûr, the second pyramid of Gizeh, and the mastaba at Gizeh.

Dr. Borchardt concludes: "Die Bedeutung der besprochenen Aufgaben für die Geschichte der Mathematik brauche ich wohl nicht erst hervorzuheben. Wir sehen hier die nachweislich ersten Versuche auf goniometrischem Gebiete. Die geneigte Lage einer Seitenfläche wird in unseren Beispielen durch das Verhältniss zweier coordinaten bestimmt, genau so wie wir heute einen Winkel etwa durch die Grösse seiner cotangente festlegen."

AN EARLY EGYPTIAN SCULPTOR.—Prof. Erman has an interesting note in the *Zeit. f. Ägypt. Spr.* (xxxI, 2) on an artist of the Ancient Empire whose name he has discovered among the famous reliefs of the tomb of *Ptah-hotp* at Sakkarah. In the lowest corner on the left side of the west wall we read an inscription which Erman translates "der von ihm beschenkte und von ihm geliebte, der ihm ehrwürdige, der Oberbildhauer *Pth-nh-n*." The man near whom this is placed has a characteristic head—evidently a portrait—quite different from the conventional head of the rest. *Pth-nh-n* was evidently the sculptor of the tomb and a friend and favorite of *Ptah-hotp*. As Erman remarks: "If this be a correct explanation, then we have gained in *Pth-nh-n* the name of one of the best Egyptian artists of the Early Empire, a man who distinguished himself above others by fresh humor and fancy."

To the above a note is added by Kurt Sethe, who brings forward a representation in a tomb of the IV dynasty (L. D. II, 12 c.). Here two men are represented with an inscription which describes them to be the painter and architect of the tomb. The painter's name is *Smr-K 3*, the architect's . . . —*K 3f*.

LAKE MOERIS.—Prof. Brugsch has an article on Lake Moeris in the *Zeit. f. Ägypt. Spr.* (1893, 1, and 1894, 1). In it he studies the texts that mention the lake and its canals, the two main canals being used for all Egypt and regulated by a system of sluices, while a third led water into the middle of the Fayûm, and especially for the use of its main city, Crocodilopolis, of which city Dr. Brugsch makes a special study.

EGYPTIAN STATUE FROM TYRE.—In the collection of Consul Loytved, at Beiruth, is a fragment of a late-Egyptian statue found at Tyre. Although a purely Egyptian work, it is a question whether it was not executed for a temple at Tyre. It represents Osiris, and has an inscription relating to his temple. A later mixed Greco-Latin inscription on the back identifies the statue as of a priest of Osiris, and this may have been done when in Roman times an inventory was made of the offerings and other objects in the temple.—*ERMAN in Zeit. f. Ägypt. Spr.*, xxxi, 2.

INTERNAL DECORATION OF VASES.—Lud. Borchardt has an article in the *Zeit. für Ägypt. Sprache u. Alterthumskunde* (1894, 1) on the internal decoration of Egyptian vases as represented on the monuments (*Die Darstellung innen verzierten Schalen auf Ägyptischen Denkmälern*). In it he attempts to reconstruct in accordance with true perspective the vases represented without perspective on the monuments. Generally speaking, the design of this internal ornament is shown in the paintings or reliefs by bringing it above the edge of the vase in flat front view. The silver vases were those that showed the highest ornamentation, but, as most of these have been destroyed, the faience vases must be studied for patterns and designs.

The author illustrates in an interesting manner, by reproducing side by side, the same decorative motive as represented incorrectly in the monuments and as found on the works that have come down to us.

FORMULA OF DIPLOMA FREEING FROM SUSPICION OF CHRISTIANITY.—It has never been known exactly how the formula discharging a person suspected of Christianity, on his sacrificing to the gods, was worded. Such a formula has recently come to light, and has been published and commented upon in the *Zeitschrift für Ägyptische Sprache* (xxxii, 2) and in the *Proceedings of the Society of Biblical Archaeology* (1894).

This *libellus* certifies that a certain Aurelius Diogenes has appeared duly before the priests and sacrificed to the gods. Its date is A. D. 250.

EGYPTIAN PAPYRI.—A most interesting exhibition is now open in the Museum at Vienna. This consists of a collection of upwards of 10,000 Egyptian papyrus documents, which were discovered at El Fayûm, and purchased by the Austrian Archduke Rainer several years ago. The collection is unique, and the documents, which are written in eleven different languages, have all been deciphered and arranged scientifically. They cover a period of 2,500 years and furnish remarkable evidence as to the culture and public and private life of the ancient Egyptians and other nations.

Prof. W. Golenischeff, the well-known Orientalist of St. Petersburg, bought a number of fragmentary pieces of papyrus which he was

offered when passing through Cairo during the winter of 1890-91. On examining his acquisitions he was most agreeably surprised. Not only the numerous pieces allowed being fitted together so that three long manuscripts could be reconstructed almost completely, but then these papyri proved to be of uncommon literary interest. One of them is, with regard to Old Testament science, one of the most remarkable texts ever dug from the soil of Egypt. A considerable extract from this interesting document is given in the *Sunday School Times* of March 10th. All its information on the political conditions of Palestine, Phœnicia and Northern Syria will be the more valuable because they date from a time on which both hieroglyphic and cuneiform inscriptions have been completely silent so far. Scientific commentaries on the books of Samuel will have to enumerate the papyrus Golenischeff among their sources in future time.—*Biblia*, April, 1894.

EGYPT EXPLORATION FUND.—The seventh ordinary general meeting of the Egypt Exploration Fund was held on May 23, the president, Sir John Fowler, Bart., in the chair.

The financial report was read by the hon. treasurer, Mr. H. A. Grueber, who first dealt with the accounts of the Egypt Exploration Fund, as apart from those of its Archæological Survey (for the latter separate subscription has always been asked), showing that the expenditure for the year 1892-3 had been about £2,140. This sum included M. Naville's expenses at Deir el Bahari, those involved by the continuation of Count d'Hulst's work at Behbeit el Hagar and by the transport of heavy antiquities from El Bersheh, Beni Hasan and Tell Mokhdam, the cost of publications, and also ordinary and extraordinary office expenses. It further included an item of £146, representing the expenses incurred by Mr. Roger and Mr. Howard Carter, when directed by the committee to continue the excavation for the recovery of the Mendes or Thmuis library at Tmei el Amdid, a work which M. Naville had commenced in the previous year. Unfortunately, on account of the absence of M. de Morgan in Upper Egypt, Mr. Roger was not allowed to proceed with the unearthing of the library chambers; and in consequence he was compelled to return to England without having been able to carry out the wishes of the committee. The total receipts for 1892-3 were over £2,121, an income almost entirely due to annual subscribers in England, America and the Colonies.

The expenses of the Archæological Survey during the same year had amounted to over £1,200, including the salaries of Mr. Percy E. Newberry and Mr. Howard Carter, their travelling and living expenses to, in and from Egypt, and the travelling and living expenses of Mr. John Newberry (architect) and of Mr. Percy Buckman (artist), who

had otherwise given their valuable services to the Survey. The £1,200 also comprised £469 for the publication of *Beni Hasan I.* Since subscriptions and donations to the Survey during 1892-3 had not reached £500, the Fund had advanced £700 to its assistance, and it is earnestly hoped by the committee that increased public interest in the Survey will justify their faith in its future. During the three seasons spent in Egypt by officers of the Archaeological Survey, sufficient material was collected to provide annual publications for five or six years. *Beni Hasan I.* (1890-1), and *Beni Hasan II.* (1891-2) have already appeared, and will shortly be followed by *El Bersheh I.* and *II.* (for 1892-3 and 1893-4).

The total receipts of the Egypt Exploration Fund had not fallen off during the year under consideration; but the expenditure had increased, owing to the fact that the work now being carried on at Deir el Bahari is a very large one.

Miss E. Patterson, the secretary of the Fund, stated that the forthcoming Memoir for 1892-3 would be a preliminary volume on Deir el Bahari, written by M. Naville, forming a sort of introduction to the series of Memoirs which is to cover the work of the Fund on this site. She also drew attention to a special publication of the Fund, viz., a small Atlas of Ancient Egypt, just issued, of which a few advance copies lay upon the table. In this Atlas each of the ancient maps is accompanied by the list of the nomes, of their capitals, and of their local deities. The maps are prefaced with letterpress, giving a brief account of the history of the Egyptians and of their foreign intercourse, together with a description of their country. The Atlas also contains a chronological table of the dynasties, a list of Egyptian sites mentioned in the Bible—identified when possible—and a short bibliography. The secretary stated that it had been decided to make no distribution of objects from Deir el Bahari until the work was completed, and all had been brought together for comparison.

Mr. John Newberry, the architect, who has for two seasons assisted professionally at the excavation of the temple of Deir el Bahari, then gave an account of the progress of that excavation and its present state. The paper will be printed in the forthcoming *Archaeological Report* of the Fund.

The president noticed the engagement of Mr. D. G. Hogarth as an officer of the Fund.

Mr. Maunde Thompson, C.B., returned thanks on behalf of the British Museum for certain antiquities which had been presented by the Fund. He said that the annual volumes issued by the Egypt Exploration Fund would henceforth take a much higher standard than they had ever taken before. In order that the excavations at

Deir el Bahari might not push too far ahead of the work of publication and of the artists employed in copying the sculptures and paintings which are laid bare, it might be necessary to suspend operations for a season. Moreover, Deir el Bahari, though involving great excavation and restoration, and providing large material for publication, is not rich in antiquities; and the society, being bound to consider the advantages of distribution of antiquities, did not propose to confine its work to Deir el Bahari for the next few years.—*Acad.*, June 2.

DAHSHÛR.—M. DE MORGAN'S GREAT DISCOVERIES.—In our last issue the first reports of M. de Morgan's remarkable discoveries in and about the pyramids of Dahshûr were announced. We give here a translation of part of M. de Morgan's report, made at the close of his work to the *Académie des Inscriptions et Belles Lettres*, on April 13, and we add to this an abstract of an article by M. Al. Gayet in the *Gazette des Beaux Arts* of May 1, 1894, which treats in great detail of the jewelry found by M. de Morgan.

"There exist at Dahshûr two pyramids of crude brick, large earthen tumuli, whose sombre aspect contrasts with the yellow of the desert sand and of the neighboring stone pyramids. They are at the summit of the hills bordering the Nile valley on the west. One is to the south, facing the village of Menshiyeh, the other to the north between this village and that of Sakkarah. Until now the northern pyramid had resisted all attacks, while the southern had never been investigated at all.

"In my absence excavations were carried on by my orders to the south and north of the northern tumulus, which I recognized on my arrival to belong, those above to the Ancient Empire and those below to the Twelfth Dynasty. The cartouches of Usertesen II and III and of Amenemhat III left no doubt as to the period of these latter monuments.

"The pyramid had been attacked, and, under the millions of bricks heaped together, were found the untouched diluvian gravel-beds. The royal chamber, therefore, was not constructed within the monument itself, as is always the case in the stone pyramids. It seemed as if it might have been built deeper down. A boring made in the very centre of the trench already opened soon showed that the diluvium continued to a depth of 9.50 m. below the foundation of the pyramid and was without any trace of artificial work. Below this alluvium was a friable sandstone . . . Hence it was useless to search further, for if the tombs existed they were dug in the mass of the rock probably at a great depth.

Tombs.—"The tombs of the Middle Empire in the necropolis of Dahshûr do not resemble in any respect those of the Ancient Empire

discovered by Mariette-pasha at Sakkarah. We do not find in the monuments of the XII dynasty at Dahshûr complicated sepulchral temples covered with bas-reliefs, like those of Ti, of Mera, of Ptah-Hotep, of Ptah-Shepses, *etc.* The mastaba of Dahshûr is simpler and includes no chamber. It is composed of a rectangular solid mass of crude bricks, often very small, covered with a revetment of white Turah limestone. The steles are placed in the revetment, face to the north or east, and have their table of offerings. The well, instead of being opened in the centre of the construction, as is always the case in the tombs of the Ancient Empire, is generally placed north of the mastaba; but the galleries are so dug that the deceased rests precisely beneath the stele bearing his name. The passages leading to the sepulchral vault are either cut in the rock, and in this case are covered with a surbased vault, or are constructed in Turah limestone (and are then of rectangular section), or, finally, are covered with a vault of crude brick in very regular courses and slightly raised. These observations regarding the tombs of the XII dynasty in the necropolis of Dahshûr are the result of the opening of thirty mastabas. There exist striking analogies between the construction of the pyramid and that of the mastabas.

Discovery of the Pyramid Tomb.—"Investigations that I carried on at the base of the pyramid, at the point where the revetment was supposed to be, on the north and east sides, led to the discovery of stones decorated with fragments of inscriptions. One of these bore the cartouche of Usertesen III. This discovery changed into quasi-certitude my suppositions as to the age of the pyramid. I at once resumed the search for the wells in the free space between the foot of the pyramid and its brick surrounding-wall. Many tentative holes were dug through the artificial soil down to the diluvian gravel, and I found the remains of a deep excavation hidden under the sand. Following these traces, I reached the opening of a well (Feb. 26) near the n.w. corner of the pyramid. In the course of the work a tomb, rather poor but of the XXVI dynasty, was found in the débris that obstructed the well, and on Feb. 28 the door of the subterranean structure was discovered.

"A tortuous passage descended gently toward the pyramid and ended in a sepulchral chamber vaulted and lined with white limestone, in which, among fragments of a sandstone sarcophagus, lay the remains of a diorite statue. Everything in the sepulchral vault had been broken. The well by which I entered was probably that of the earlier despoilers of antiquity, who were, of course, earlier than the XXVI dynasty. The first tomb opened into a passageway 110 metres long, running from west to east, and consequently parallel to the

northern face of the pyramid. In the north wall of this gallery there opened doors built of Turah limestone. Everything had been turned topsy-turvy; the sarcophagi were open, but the inscriptions upon them showed that in the second vault queen Nefert-Hent, among others, had been buried. In the midst of broken slabs and rubbish lay skulls, canopi, vases of terracotta and alabaster. Everywhere was the greatest disorder, and in places the white walls still bore the marks of the spoilers' hands.

"This first visit made, I immediately set the men to clearing the main gallery. A stone wall was met and passed, and on the other side of it I found sure signs of the existence of another well. It was time that an opening were found, for air was beginning to be bad in the gallery and the lamps were going out. I made a ground-plan of the subterranean excavations, and, applying it to the surface, fixed on the point where the opening was made. This well (the only original one, the other being made by the plunderers) was opened up in a few days. It was made near the northeast corner of the pyramid, and led to the discovery of a tomb until now unknown. Twelve sarcophagi of princesses were successively discovered and the clearing of the rubbish began.

Jewelry.—"On March 6, a first treasure was discovered. The jewelry, placed in a coffer incrustated with gold and silver, had been buried in the very soil of the gallery, at a depth of about 0.40 m., near the door of the tomb of the princess Hathor-Shat. On the next day, March 7, another hiding-place was found in a neighboring gallery, at the foot of the tomb of princess Sent-Seisbet. These treasures are extremely rich: necklaces, bracelets, rings, mirrors, pearls and jewels of all sorts. This jewelry was brought out by hundreds from the cavities in which they had been heaped. The coffers had been destroyed by dampness, and their rich contents lay pell-mell in the sand and débris. Almost all the jewelry is of gold, often incrustated with precious stones.

"In the first treasure there were: a gold pectoral enriched with precious stones and representing the cartouche of King Usertesen II sustained by two crowned hawks; two bracelets; several necklace-clasps; the whole in gold incrustated with lapis-lazuli, carnelian, Egyptian emerald, turquoise and obsidian; several scarabs, one of which bears the name of Usertesen III and another that of Princess Hathor-Shat—these two scarabs are perfect marvels, both for the material in which they are cut (amethyst) and for their workmanship; six crouching lions; necklaces made of gold pearls, amethyst and lapis-lazuli; large gold shells imitating cyprea, others representing pearl oysters; a gold necklace; a silver mirror; and a multitude of small objects of the most perfect workmanship.

"The second treasure is far more important than the first. It comprises several hundred objects, among which should be mentioned a gold pectoral decorated with precious stones. In the centre is the cartouche of King Amenemhat III. On both sides the king is represented standing, with raised mace, striking an Asiatic captive, designated by an accompanying inscription. Above soars a vulture with wings spread. On the reverse, this scene is in chiselled gold; the incrustations of this piece are of lapis-lazuli, Egyptian emerald, feldspath, turquoise, carnelian and black obsidian. These gems are not only cut in the desired shape, but also carved; the heads of the king and captive, as well as the bodies, show in relief every minute detail. Another pectoral, with the name of the same king, bears his cartouche sustained by two griffins. Four captives are represented on this piece, two Asiatics and two negroes. On the reverse, the same scenes are chiselled in gold. These two pieces, of the first importance, are, together with the pectoral of Usertesen II, the finest pieces of jewelry discovered. Then come incrustated bracelets with the name of Amenemhat III; numerous scarabs with the names of the kings and princesses; three mirrors, two of which are in silver, mounted in gold; a necklace of lion-heads combined four by four, each of the pearls of this necklace being of the size of an egg; gold shells as large as the lion-heads; necklace clasps enriched with precious stones; necklaces of gold, amethyst, emerald, lapis-lazuli; a glass pearl; four lions couchant, of gold, *etc., etc., etc.*, vases of carnelian, lapis-lazuli, obsidian and alabaster, some of which are decorated with gold-work, and a multitude of small objects of less importance, but the workmanship of which is no whit inferior to that of the large pieces.

Other Tombs.—"A continuation of the digging led to the discovery of a line of eleven wells running from east to west. Some had fallen in and appear never to have been finished; but one of them, the one nearest to the royal well, gave most important results. On April 19, this well having been cleared, I found a door giving access to a passage-way 14.60 m. long, covered with a skilfully constructed cylindrical vault. The door was opened with all the precautions required by the bad condition of the gallery, and as soon as the first stones were removed we had before our eyes all the objects in a small chamber, just in the places where they were left by the priests of the XII dynasty or by the family of the deceased. Here were earthen vessels still containing Nile mud; here were pieces of embalmed meat, and further on plates with dried provisions. In a corner were two cases, one containing perfumes in alabaster vases carefully labelled in hieroglyphic characters; the other contained only

sceptres, canes, a wooden mirror, and arrows whose feathers were in a remarkable state of preservation. Until now it was impossible to say whether this tomb was that of a man or woman, for it contained both arms and toilet articles. The only indication found was the seal with which the perfume coffer was closed, on which was the name of the friend of the King Tesh-Senbet. As soon as the objects had been numbered and a sketch of their position taken, the opening of the sarcophagus was begun. The slab being raised, the wooden sarcophagus appeared covered with gold leaves, decorated with two head pieces and terminating in a shelving ridge. A gold inscription occupied the entire length of the cover: it gave the name and title of the deceased, the princess (or royal daughter) Noub-Hotep-ta-Khroudil. The body of the sarcophagus, also decorated with gold leaves, was of natural wood, only the gold bands bearing inscriptions were framed in a line of green paint. The mummy had suffered very badly from dampness: there remained but a mass of bones, jewelry and dust, enclosed in the remains of a plaster covering completely gilt. The objects had not been touched. On the left were the canes, the sceptres, the flagellum—a curious implement often represented on the temple reliefs, but never found as complete as this one. On the head were placed a silver diadem incrustated with precious stones, a uræus and a gold hawk-head. On the breast was a necklace decorated with about fifty gold pendants, incrustated, and ending in two gold hawk-heads of natural size. Toward the belt was a poniard with gold blade, and on the arms and feet were gold bracelets decorated with pearls of Egyptian carnelians and emeralds. The head of the mummy was, as usual, at the north end of the tomb; to the left of the feet was the canopic case plated with gold like the sarcophagus and covered with texts. Among the titles of Princess Noub-Hotep, there is no mention of her having been queen, and yet I found in her tomb all the attributes of royalty. Perhaps she died before her husband came to the throne, while he was still only the heir-apparent.

"The tombs of King Hor (see further on) and princess Noub-Hotep, as well as the details of their sepulchral furniture, show that these two persons were buried at the same time. Can we admit that the princess was either the wife or the daughter of the king next to whom she was buried? Until further light comes, this is my opinion.

"At the same time that the investigations were being carried on, I was drawing up a detailed report of their results, which will be published in a special volume, in which will be illustrated all the objects, texts, plans and architectural details. I am assisted in this work by MM. G. Legrain and G. Jéquier, members of the French Oriental Institute at Cairo, as the Egyptologists of the *Service des Antiquités* are

detained either at the Gizeh Museum or at the other excavations undertaken by my administration at different points in Egypt," etc.

At the meeting of the *Académie des Inscriptions*, at which the full text of the above report was read, M. Maspero spoke, making some corrections to the report, and establishing the fact that the king whose mummy was discovered is not unknown. His name is given in the "royal canon" of Turin, and should be read, in its full form, *Autu-ab-Ra*. There are two kings of this name in the XII dynasty. This must be the earlier of the two, who lived apparently a century and a half after Amenemhat IV.

King Autu-ab-Ra.—In the above extracts from M. de Morgan's report, published in the *Revue de l'hist. des religions* (March-April, 1894), the description of the finding of the royal tomb and mummy is omitted. This king is referred to above by M. de Morgan under the name of *Hor*, and his tomb was next to that of princess or queen Noub-Hotep. In the *Athenæum* report it is spelled *Heru-âu-Râ*. We have seen that M. Maspero reads *Autu-ab-Ra*. Here is the note in the *Athenæum* of April 28 :

"Not far from the pyramid at Dahshûr, to the north he (M. de Morgan) has found a royal tomb containing the remains of a new king, probably of the XIII dynasty, called *Heru-âu-Râ*; the sarcophagus chamber was found at a depth of 32 feet. Like so many fine tombs of this period, it was despoiled in ancient days, but the mummy, though in a bad state of preservation, has been found intact, together with the wooden sarcophagus decorated with plates of gold inscribed with the royal cartouches and titles, and a number of gilded paste ornaments. Near the sarcophagus was found a gilded wooden shrine, also inscribed with the royal cartouches and inscriptions, and in it a gilded ebony statue of the king about 4 feet 8 inches high. Two broken 'Canopic' vases, an alabaster table of offerings inscribed with lengthy religious texts and the king's names, and a very large number of smaller objects complete the find. M. de Morgan has reason to believe that he is on the eve of finding the tombs of the kings who built the brick pyramids at Dahshûr, and he is pressing on the work with renewed activity. It is early to decide where this new king is to be placed, but it is pretty certain that we must consider him to belong to the early part of the period of the XIII dynasty, when names of the kind were in use; as many copies of the name have been found, there can be no doubt about the accuracy of the reading of the signs."

We have seen above that M. Maspero places this king in the XII dynasty.

In a popular notice inserted by Charles de Koven in *Harper's Weekly* of June 23, there are one or two points not touched upon in the above notices, and mostly posterior to M. de Morgan's report.

M. de Morgan, continuing at work near and under the northern pyramid, on April 10th set his native workmen sounding about the southern, also of brick, hoping to arrive more cheaply at the plan whereby these kings concealed their graves, the southern pyramid being much freer from sands. Up to May 15th, however, he had not found the key.

Near the old circle about the north pyramid, however, he met traces of the name of Amenemhat III, and April 17th a statuette of gilt wood; then he unearthed the record of an unknown king of the Twelfth Dynasty, Hor Fou-Ab-Ra. Moreover, he learned just where that king came into the royal line. For, rooting about the floor of the tomb, he found under a heavy stone a box whose cord had been sealed with the seal of Amenemhat III. As his successor sealed with his royal seal the boxes of the dead king, here is proof that Fou-Ab-Ra must be placed after Usertesen III, and immediately before the builder of the Labyrinth. The tomb of this king was rifled. His sarcophagus had been opened and the mummy-case shattered. A statue of ebony inlaid with gold, a temple-shaped canopy, upset, canes and sceptres lay about. Two square inscribed slabs were intact, bearing the king's name. On the 19th he dug out a shaft which gave access to a grave—and this time an absolutely untouched one—the only unrifled grave he had found. This belonged to a princess called Noup-Hotep-Ta-Khroudil.

At the south pyramid little has been found, except remains of a portal before the eastern face, a section of rose-marble column, and, on another side, no less than eleven separate shafts, such as lead to tombs. Near the surface were traces of bench-shaped chapels, and great were the expectations! But here a terrible disappointment befel: Only two of these shafts had been pushed to completion, and they, although each had its deep-lying grave, contained nothing of importance.

The pursuit for the grave of one of these three famous kings continues. Meantime M. de Morgan has made a very peculiar find. About two hundred yards to the south of the northern pyramid he chose a spot in the sands, and on the 1st of May struck the roof of a vaulted gallery, closed by a wall at the eastern end, and turning to a narrow pass at the western. Beyond the wall to the east were great masses of broken stone from the Tourah quarries across the Nile. Working into these, on the 13th and 14th of May two big galleys were found, each about thirty feet long, richly painted, and in a fine state of preservation.

In themselves these are unique survivals, but they indicate much more. They are specimens of the celebrated funeral boats we see on the walls of graves in Egypt, which carried the corpse from the east to

the west bank of the Nile, symbolizing the journey from birth to death, as well as the sun's march from east to west. It is as if one found the royal hearse. Can the royal corpse be far away?

To this discovery of royal (?) sepulchral galleys the following exaggerated note in the *Academy* of July 14, probably refers: "We hear from Egypt that M. de Morgan's latest excavations at Saqqarah have been attended with the most unexpected success. He has discovered a buried fleet of the old Empire, with masts, sails, and rigging complete. One of the ships measures thirty-five metres in length."

DESCRIPTION OF THE JEWELRY.—M. Gayet writes on April 14 from Cairo a long letter to the *Gazette des Beaux Arts* (May 1) in which he analyses the style and shows the interest of the jewelry of which M. de Morgan has found over eight hundred pieces.

M. Gayet recalls how the brick pyramid of Dahshûr was by many attributed to as early a date as the time of Snefru (III dynasty). He calls attention to the fact that M. de Morgan's profession as an engineer and his consequent geological acquirements were what really gave him the clue to his discoveries, for he was able to ascertain, by analyzing the surface refuse thrown up in antiquity from the wells, that these wells were dug to depths of 12, 15 and 18 metres.

The conclusions to be drawn from the jewelry found are probably the most important results of the excavations. Hitherto certain forms and themes (first appearing in works of the New Empire) had been regarded as borrowed from Asiatic art. But now (being found in works of the XII dynasty) it would seem as if Asia had borrowed them from Egypt.

Three pieces stand out from all the rest for beauty of workmanship, perfection of design and the perfect understanding of polychromy shown by the artist in the distribution of the colors. They are the three pectorals with the names of Usertesen II, Usertesen III and Amenemhat III. The design represents, as ever, the mysterious *naos* and the entire field is cut away. In the centre of the pectoral of Usertesen II is the cartouche with the royal prenomén Kha-Kheperu-Ra, surmounted by the three divine axes and the altar bearing the bread offering. On each side is a hawk standing on the sign of gold and bearing the crowns of Upper and Lower Egypt. Finally, at each of the two upper corners of the *naos*, under the cornice, is the solar disk, around which is coiled the sacred serpent bearing the sign of life, the *crux ansata*, around its neck. The process employed by the jeweller in this piece is the same as that employed in the XVIII dynasty, and which reminds so closely of *cloisonné* enamels. The border of the design is given by a gold rib or ridge, the raised edge of a metal ground which is divided into *cloisons* by secondary ribs within which are

fastened enamel pastes and precious stones. The hawks of Usertesen II have bands of turquoise and lapis-lazuli; the suns are formed of a carnelian disk surrounded by a green aureole of glass paste; the inscription is of turquoise and feldspath; the scarab with the royal prenomen is of lapis-lazuli. Finally, the upper border of the pectoral is formed of an Egyptian cornice divided into alternately blue and green palmettes, while the crucibles upon which the hawks stand are also blue and green.

The style of the pectoral with the name of Usertesen III is exactly the same. The cornice of the *naos* is sustained by stems ending in a lotus flower: another stem with its flow bends forward onto the field. Directly under the cornice is the hawk with spread wings, holding in each claw the seal of the mystery of infinity. Below it is the cartouche with the prenomen *Kha-Kheh-Ra*, held up by the fore-paws of two sphinxes with lion bodies and hawk heads, crowned with the double horns of the viper and the feathers of light, treading under foot the foreign nations, represented by an Asiatic and a negro under each sphinx. This pectoral is more cut away in the ground, and differs from the preceding also in the tone of its polychromy. Red and green are combined in almost equal parts with blue. The head and feet of the hawk are green; the feathers of its body and wings alternately blue and red: the feet of the sphinxes are of feldspath, their body and the feathers of the head dress are red and blue. The prisoner under the sphinxes' hind-feet is of lapis-lazuli; the one crouching beneath his fore-feet in carnelian; the lotuses and cornice are of equal blue, red and green tones.

The most highly detailed of the pectorals, that with the name of Amenemhat, has in its upper section a hawk like that of the preceding pectoral except that in its talons the seal has given place to the signs of life and duration, extended over the king's head. An inscription placed between the wings and the upper cornice gives twice the word *nebpe* "master of heaven." Below the hawk is twice repeated the cartouche with the prenomen *Mah-n-Ra* accompanied by the titles *nouter nefer neb taoui testou nebt* "The good god, master of the two-fold land (Egypt) and of foreign countries." This king is himself twice represented, raising his mace over a kneeling prisoner. Behind him a personified *crux ansata* holding in both hands a mystic emblem. An inscription gives: *Hou meti Ment* "he crushes the Ment" (Nomads of Sinai); and finally, in the corners, the words: *Hent taoui* "he governs the two-fold land." The tonality of this last pectoral is red. There is quite an element of turquoise blue, but garnet predominates. The flesh of the king is represented by carnelian, his skirt by a yellow earthen paste. The prisoner has the tanned complexion of the Asiat-

ics: his hair is of lapis-lazuli. The hawk, the palmettes of the cornice, the inscriptions, are almost entirely red and blue; but the ribs of the *cloison*, quite thick, give to this polychromy an unusual strength and harmonize the separate tones in a soft shimmer.

These pieces show a developed artistic education, and are superior to the treasure of Queen Ah-Hotep (xviii dyn.): the treatment has greater breadth, vigor and refinement. The types to be followed later are here already established but not slavishly: they are purer and more supple than later. Probably if a treasure contemporary with the pyramids of the Ancient Empire were found it would show the most perfect types.

M. Gayet then gives a complete list of the jewelry found at Dahshûr up to date. He notes that they show a remarkable fondness for shell forms, a fact that is no coincidence, though the reason now escapes us, for all the tombs of the xii dynasty contain bivalve shells, many engraved with the names of the Usertesens. Hundreds have been found at Assuân, Gebeleîn and Minyeh. They are not found either before or after this period. Secondly, the lion-masks decorating the eight pearls of a necklace are worthy of a place in the history of Egyptian jewelry, for this decoration had been hitherto supposed to have been imported from Asia under Thothmes III. This was but an example, it was said, of the general fact that the industrial arts in Egypt were formed entirely on Asiatic models at that time. The treasure of Dahshûr destroys this illusion, for under the xii dynasty Egypt knew no Asiatic civilization, and was familiar only with the nomads of the desert, who had no art. M. Gayet concludes: "The solution of the problem is precisely opposite to the one supposed: it is Asia, who, taken captive to Egypt, learned of its jewellers, cabinet-makers, weavers, and ceramists their secrets, and which, when constituted as a nation, reproduced the motives learned during slavery. That certain arts should then have been developed among them more than in Egypt is nothing extraordinary. All the same, a great historic fact remains unassailable. It is Egypt which educated Asia, and not the reverse." Had these works been executed under the reign of the Ramses they would surely in many cases have been regarded even as purely Asiatic works, for many are exactly like the objects represented on the reliefs of Thothmes as brought back from Asia. [M. Gayet certainly must be taken with a large grain of salt. Where is the proof that Egypt did not derive these motives from Asia under the Ancient Empire? The civilization of Babylonia is older than that of the pyramids, and the school of critics is growing which regards Egyptian civilization as a branch of Asiatic from the beginning. Certainly it can hardly be denied that communication between the two civilizations existed during the Ancient Empire.—Ed.]

KOPTOS.—DISCOVERIES OF MR. PETRIE.—PREHISTORIC PERIOD AND ANCIENT EMPIRE.—The following is Mr. Petrie's preliminary report on his work at Koptos, the great importance of which was alluded to in our last issue: "Believing that the dynastic Egyptians had entered the Nile valley by the Koser-Koptos road, I applied to M. de Morgan for permission to excavate at Koptos, in hopes of finding some trace of the immigrating race. That permission was readily granted, and I cannot thank M. de Morgan too much for the manner in which he has facilitated my work in every way possible.

"In eleven weeks I completely turned over every yard of the temple site of Koptos, and learned far more of the earliest Egyptians than all that was known before. The prehistoric results are unique; and the historical remains include the works or names of thirty-five kings, the most continuous series known on any site, extending from the xvth dynasty to the third century, A.D. The following are the principal results in chronological order:—

"*Prehistoric.*—Portions of three limestone statues of the local god Min (or Khem), about 13 ft. high when complete. These each have a girdle of thongs, like the Ababdeh girdle of the present day; but with a decorated flap hanging down the right side. The figures on the flap are roughly outlined by hammer-work, with much spirit, but as simply and naively as on the bone cave carvings of Europe, which they much resemble. The statues themselves are merely shaped monoliths, with half developed arms, legs grooved out like a Greek "island figure," and a head with gross ears, whiskers, and no face; the features were probably supplied by an attached wooden mask. The whole affair is quite barbaric, and far more akin to the stone age of Europe than to anything known in Egypt. These figures were found buried, like many other sculptures, beneath the foundations of the Ptolemaic temple. There is no age of Egyptian work known, from that period back to the iv dynasty, when any carving in the least like this was executed. These figures show a gradation in skill and age, indicating that they were successive; and hence their use covered a long period, and they cannot have been the product of any brief wave of barbarism. Moreover in two points—the indication of the origin of the hieroglyph of Min, and the attitude differing from all known statues of Min—these works show that they belong to an age which was already past in historical times. The carvings on them represent the fetish pole of Min, decorated with a feather and a garland, and hung round with sawfish and pteroceras shells. Such a derwish pole is akin to what is now seen in the Red Sea region. And the figures of animals—the ostrich, elephant, sawfish, and shells—all point to the immigrants having arrived there from the south of the Red Sea. A

closer agreement with what was expected could hardly have been devised.

"I—III Dynasty. Pieces of pottery statues and relief work were found in the earliest part of the temple. These are of careful finish, and were presumably the best products of their age, being offered in the temple. Details of these show them to be earlier than any of the historical stone statuary; and such modelling in pottery explains the rise of Egyptian art, without its leaving any permanent trace before its bloom in the IV dynasty. A period of pottery also explains all the peculiar conventions of the stone sculpture. IV Dynasty. Part of a large alabaster vase of Khufu was found in the town, doubtless from temple furniture. VI Dynasty. Part of an inscription of Pepi I, and two slabs with figures of Pepi II. XI Dynasty. A large quantity of sculptures of the temple of Antef V (Ra-nub-kheperu) were found, laid face down for a later pavement. They indicate a brick temple faced with stone. There is not a single piece of temple sculpture of this dynasty in Europe. A long decree of Antef V was found, deposing the prince of Koptos for treason, and elevating a new princely family. XII Dynasty. Portions of very delicate relief sculptures of Amenemhat I, and sunk relief sculptures of Usertesen I; also the greater part of the temple door jamb of Usertesen I with very fine sculpture; also a door jamb in red granite. Not a single slab of temple sculpture of this age was hitherto known. Of Amenemhat III there is a colossal vulture, weighing about a ton, but headless. XIII Dynasty. Of Sebekhotep V, I brought part of a stele, naming a new queen and two new princesses. Scarabs of Mer-nefer-ra and of Apepa, were obtained from diggers in the town. XVII Dynasty. Of the king Rahotep, only known by a few scarabs and a posthumous tale, we found portions of a large stele, showing that he restored the temple. XVIII Dynasty. Tahutmes III entirely rebuilt the temple. His foundation deposits I cleared out carefully: in one pit were about 200 vases, thirteen alabaster vases inscribed, many bronze tools inscribed, and corn grinders, beside beads, scarabs, &c. Many blocks of his temple sculpture were found, and most of his foundations remain. XIX Dynasty. Seti I appears on a small sphinx. Of Ramessu II, there is a fine life-size group of the king seated between Isis and Nebhat, carved in red granite, and in fair condition. It belongs to the earlier part of his reign, and is of good work. The weight is about three tons. Part of a long stele recounting the offerings made to Ramessu from all lands is of interest. Other steles of this age were found. Menenptah's name also appears in the temple. XX Dynasty. A large granite stele of the twenty-ninth year of Ramessu III; and the scene of a limestone stele of Isit, daughter of Ramessu VI, and of

an unknown queen, Nubkhesdeb. XXII Dynasty. A pillar of Osorkon I (?). XXVI Dynasty. Sculpture of Psamtik II, and the lower part of a small chapel of Aahmes II. XXX Dynasty. Part of small obelisk of Nekhthorheb.

"*Ptolemaic.*—A wall of Ptolemy Soter; a long inscription of an official under Philadelphos, who rebuilt the temple—110 cubits long and 40 wide, agreeing with the foundations now found. Part of a statue of Euergetes. Sculptures of Ptolemy IX and XIII.

"*Roman.*—Temple sculpture of Augustus, Tiberius, Claudius, and Nero. Greek inscriptions of Galba, Domitian, Caracalla, Elagabalus, and Quietus. Some of the Greek inscriptions are of interest, especially one found just before I arrived, giving the customs tariff on persons and goods from the Red Sea, under Domitian.

"Of uncertain but early date we found flint flakes and pieces of knives scattered on every square yard of the primitive soil that we uncovered. The first settlement was on a rise of yellow clay, washed out of the Hammamat valley, and deposited as a fan in the Nile valley. Large quantities of pottery of the early settlement, and wells, were also found.

"It is remarkable, in one spot, and in so short an excavation, to have found such an extensive historical series; the barbaric statues, and the rise of modelling in pottery, have opened an entirely new chapter of Egyptian history, and given us a greater advance than anything since Mariette's uncovering of the art of the old kingdom.

"I have been much assisted by a new student, Mr. Quibell, who is now finishing the packing and transport of the collection; his last letter says that the 150th package is done, and more yet await him. M. de Morgan most kindly relieved me of the transport of the heavy statues, &c., as they were going to the Ghizeh Museum.

"I hope to have an exhibition of the sculptures and objects which come to England, during the four weeks of July, at University College, Gower street; and I shall illustrate the finds by photographs at a lecture there on the 26th of this month, which will be open to the public (Saturday, 2 p. m.)

"I may add that I purchased, in Cairo, the longest Greek papyrus known; it is in several hands, but all the forty-four feet of it refer to the subjects of the administration of the royal oil estates under Ptolemy III. Though broken, it will give much light on the administrative details, in the recital of decrees, by-laws, and fines, and the area of the estates in each nome. The Craven scholar, Mr. Grenfell, who was with me for some time studying excavation, will edit this papyrus on his return to England."—W. M. FLINDERS PETRIE, in *Academy*, May 19.

SAKKARAH.—**TOMB OF MERA.**—While awaiting the opportunity of publishing a more extended notice we give here a brief note on a very important discovery by M. de Morgan.

"M. de Morgan, in the course of his excavations at Sakkarah, has found the tomb of a certain Mera, his wife and his son. Mera lived during the days of Tetas, a king of the sixth dynasty. The tomb consists of no fewer than thirty-one rooms and walks. In eighteen of these there are decorated sculptures, which are very well preserved. In one of the rooms, which is filled with columns, there is also a statue of Mera, nearly eight feet high. The burial room of his wife is especially beautiful. The leading pictures on the walls are weeping women, laborers working in metals, dancing figures, and the like. This monument is one of the most beautiful that has ever been found.—*N. Y. Independent*, June 7.

NUBIA.

INVESTIGATIONS BY PROF. SAYCE.—We quote from a letter of Prof. Sayce as a supplement to the information in our last issue: "I have returned from Nubia with a goodly amount of epigraphic spoil. This has accumulated largely since my last letter was written, as we spent some time at each of the temples of the ancient Dodekaschoenos which still remain above ground. We have also discovered the remains of two other temples which were hitherto unknown. One of these occupies the northwestern part of the enclosure of a large fortress of mud brick which we found about three miles to the north of Dakkeh, and opposite Koshtemneh, near which I copied a *graffito* stating that the place was called 'the Good House.' The fortress resembles that of Matuga, though on a smaller scale; and the bulbous bases of the columns of the temple, which stand on a great platform of crude brick, indicate that it was built in the time of the XVIII dynasty. It was at Dimri, between Qertassi and Debot, that we came across the relics of the second temple, in the shape of large cut stones, the fragment of a royal cartouche, and an inscribed block of gray granite. The latter seems to show that the place was called 'the Temple of Shet.'

"On our way to Maharraqa we explored the so-called Roman city of Mehendi, and found that it was of Coptic origin, without a vestige of anything Roman about it. On the rocks I observed some Christian emblems, including Noah's dove with the olive branch in its mouth, the Good Shepherd, and the *crux ansata* used for the Christian cross. The southern gate of the city has been constructed with stones from some old Egyptian temple, and the sculptures on them show that it must have belonged to a good period of art.

"We examined the temple of Dakkeh pretty thoroughly from both

an architectural and an epigraphic point of view. On one of the blocks which have fallen from the north wall of the sanctuary of the Ethiopian king Arq-Amon, I found some later additions to the inscriptions of the latter, which contain not only the name of Tiberius Caesar, but also the name of a Cleopatra, not, however, enclosed in a cartouche. The wife of Arq-Amon, it may be noted, was a Cleopatra. I may add that the scene in which Arq-Amon is represented offering worship to the deified Per-aa, or Pharaoh, of Senem, cannot bear the interpretation commonly assigned to it. There can be no question of an act of homage performed by the Ethiopian prince to the reigning Ptolemy of Egypt, since, at Kalabsheh, Augustus is similarly represented adoring 'the Pharaoh of Senem,' who is here identified with Horsiesis, and, at Philae, Ptolemy Philadelphus—the contemporary of Arq-Amon or Ergamenes according to Diodorus—also offers adoration to 'the Pharaoh of Senem, the great god of Abaton.' Last year I discovered a stele of Ra-mer-en of the VI dynasty, which stated that he had received the homage of the Nubian princes in the island of Senem or Bigeh; and it is therefore possible that in Ra-mer-en we are to see the original of the deified 'Pharaoh of Senem.'

"At Kubbân, opposite Dakkeh, Mr. Wilbour bought a statue of a hitherto unknown 'royal son of Kush' called Haq; and about a mile to the north of the old fortress I found some hieroglyphic inscriptions on a rock, in one of which mention is made of 'the 12 schoeni.' In the ruined town of Qirsh or Sabagura, opposite Gerf Hosain, we found nothing, and went on to Dendûr, where we copied all the texts. Among them is the well-known Coptic inscription which refers to the Nubian king Eirpanome and the bishop Theodore, who transformed the temple of Philae into a church. The text of the inscription published by M. E. Revillout in the *Revue égyptologique* (iv, 3, 4, pp. 167, 168), needs several corrections. In some of the hieroglyphic inscriptions of Dendûr the sacred name of the place is given as 'the city of the divine brothers,' who, as Mr. Wilbour pointed out to me, are clearly the two deified sons of the Ethiopian prince Kubar who were worshipped there. It is noticeable that, in the Greek verses copied by Prof. Mahaffy and myself at Kalabsheh, mention is made of another pair of deified brothers, Breith and Mandoulis, who are identified with the twin stars Castor and Pollux. Among the ruins of the ancient city to the north of the temple of Dendûr, I discovered the image of either Kubar or Petisis, the elder of the two brethren, which long ago had been dragged out of the shrine. In spite of the barbarous character of the art, the image is interesting, as it combines a coarse reproduction of late Roman workmanship with the details of Nubian dress as exhibited in the figures on the dado of the Roman

chamber at Dakkeh. Thus, a girdle with pendants attached to it runs under the naked stomach, and the waist is bare except for a belt. On the other hand, a cloak is thrown over the shoulders, which covers the left breast but leaves visible a collar round the neck. Near the statue is a fragment of an altar in the Roman style.

"Kalabsheh again detained us for some time, and I discovered there a somewhat long inscription in cursive Latin dated in the twelfth year of Nerva Trajan. One of the hieroglyphic texts copied by Mr. Wilbour mentions 'Amon-Ra of Perem' or Primis. Primis Parva is usually identified with Ibrim, though according to Ptolemy it ought to be higher up the Nile. I have already noticed that the Greek *proskynēmata* make it impossible to accept the suggestion of Lepsius, that the long inscription in Ethiopian demotic which adorns one of the columns of the court at Kalabsheh contains the same text as the celebrated Greek inscription of the Nubian king Silco which is engraved on the adjoining column. The *proskynēmata* which belongs to the time of the Antonines were painted on the stone *after* the Ethiopian inscription was engraved, whereas Silco flourished subsequent to the age of Diocletian. Whether, however, Silco was a Christian, as is commonly assumed, is doubtful. Prof. Mahaffy sees nothing in his inscription which necessitates such a conclusion; and under it I have found a picture of the king representing him on horseback, in a costume partly Roman, partly Nubian, with a fallen enemy beneath the front legs of his horse, and a flying Victory offering him a wreath. To the left is the Horus hawk. The whole design, it will be seen, is distinctively pagan.

"At the entrance to the temple is a mutilated inscription, stating that it was changed into a church and dedicated to Arkhilas (Archelaus) and other martyrs by Epimakhos, 'bishop of Talmis.' The name of Epimakhos occurs in a long text, written in Coptic letters, but apparently in the 'Nubian' language, which I copied at Gebel Addeh, south of Abu-Simbel. Epimakhos may have lived shortly after Theodore of Philae; at all events while at Philae we are told that 'the cross has triumphed,' at Kalabsheh the word *σταυρος*, 'cross,' is repeated four times. I rescued from destruction at Kalabsheh another Christian monument, a rude seated figure of stone, with an inscription on the throne recording the name of a certain *βεδράριος* or 'veredarius.' Before parting from the early Christians of Nubia, I must not forget to say that one of the texts I copied at Faras is an early Coptic version of a letter of Abgarus (*Αβγρηπος*), 'king of Edessa.'"—A. H. SAYCE, in *Academy*, March 17.

SOUTHERN AFRICA.

The last two finds from the ruins in Mashonaland are of exceptional interest. One is a platter 38 inches in diameter, with a crocodile carved in the middle, and signs of the zodiac and other asterisms around the edge; this is a valuable testimony to the theory set forth by Mr. Theodore Bent and Mr. Swan as to the orientation of the principal ruins and their probable Arabian origin. The other is a coin of Antoninus Pius found in an old working near Umtali, 70 feet below the surface, which would point to Roman intercourse with this gold-producing country early in our era.—*Athenæum*, July 14.

ALGERIA AND TUNISIA.

The provinces of Algeria and Tunisia have been usually neglected in our news reports: this is the less necessary from the fact that there is a large number of special publications published both by local societies in these provinces and in France itself, especially in the *Missions Scientifiques*. We propose, therefore, in the future, to give to this part of the news its right place and will begin very soon by a general review of recent progress in discovery and research.

ASIA.

TENTH INTERNATIONAL CONGRESS OF ORIENTALISTS AT GENEVA.—The following notification of the approaching tenth International Congress of Orientalists has been sent out.

"Nous avons l'honneur de vous informer que, conformément à la décision qui a été prise à Londres, en septembre 1892, le Congrès international des Orientalistes tiendra sa X^e session à Genève, du 3 au 12 septembre 1894.

Cette session sera présidée par M. le professeur Édouard NAVILLE.

Nous venons donc vous inviter à prendre part à ce Congrès, qui, nous l'espérons, réunira en grand nombre, à leurs confrères suisses, les savants étrangers qui font, de l'Orient et de ses langues, l'objet de leurs travaux.

Le Comité d'organisation a décidé que le Congrès de Genève comprendrait les sections suivantes:

- I. Inde et langues aryennes.
- II. Langues sémitiques.
- III. Langues musulmanes (arabe, ture, persan, etc.).
- IV. Égypte et langues africaines.
- V. Extrême Orient.
- VI. Grèce et Orient (Grèce archaïque, Asie-Mineure, Hellénisme, Byzance).
- VII. Géographie et Ethnographie orientales.

Toutefois, si le nombre et la nature des travaux annoncés rendent cette mesure nécessaire, le Comité facilitera volontiers la formation de sous-sections, par exemple d'une sous-section pour les Langues aryennes et d'une autre pour l'Assyriologie."

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ARABIA.

PALMYRA.—MONUMENTS IN BRITISH MUSEUM.—Prof. D. H. Müller describes and publishes in the *Vienna Oriental Journal* (VIII, 1) a number of Palmyrenian Monuments in the British Museum, among which is the relief of a bearded warrior whom the inscription shows to be 'Atenatan, son of Zabdaté, the Satrap. The inscription is dated in the year 366 of the Seleucidæ=55 A. D., a remarkably early date for such monuments.

BABYLONIA.

LITERARY DESCRIPTION OF ASSYRO-BABYLONIAN GODS.—It is well known how extremely difficult it is to identify the different Assyro-Babylonian gods represented on the monuments. A careful study of the cylinders has secured some identifications, but not many. In this almost unexplored field Dr. Bezold brings forward some helpful data, whose importance is all the greater in that they are but the first fruit of a larger harvest. He has found in the Kujundjik collection a number of fragments of texts which describe in detail the appearance, form, drapery and emblems of various divinities—evidently parts of a complete list. Thus far the fragments found are small and very incomplete and Dr. Bezold publishes in the *Zeitschrift für Assyriologie* (1894, March) merely a specimen in order to insure the priority of his discovery. Among others we have the goddess *Bilit* described as carrying a horn, having the body of a woman from her waist upward and that of a snake from the waist downward. *Ea* has the head of a snake, a protuberance on his nose, a stream of water issues from his mouth, etc. The goddess *Iriškigal* has the two horns of a gazelle, one in front and one back, the ear of a lamb and the hand of a man: with both hands she carries food to her mouth: she lashes her body with her tail, etc. Then a male type is described (Nergal?) with bull's

horn, a man's face, wings and the body of a lion, standing on his four feet. The divinity (name gone) next described carries the heaven with both hands and with his right foot he clutches the earth.

A TEMPLE OF NINA AND BABYLONIAN CHRONOLOGY.—Prof. Oppert has made in the *Zeit. f. Assyriologie* (Dec., 1893) an interesting study of a text published by Hilprecht in his first volume of the results of our American excavations at Nippur. The gist of the inscription is that a king of the second dynasty, Gulkisar, had consecrated in the xx or xix century a piece of land to the cult of the goddess conventionally called Nina. Seven centuries later, a prefect of the province of *Bit-Sin-magir* had laicized the property, annexing it to his province. The priest of the fraternity, charged with the supervision of the sacred domain, obtained from King Belnadinabal the restitution of the land. Apparently the worship of the goddess "Nina" had during the course of these centuries fallen into disuse. She is associated here with the god of the Abyss and to her support are called the god of the Divine House, the god of the Universe and the cabbalistic name of the Divine Prince.

In the opinion of M. Oppert the chronological deductions from this document are exceedingly important, and after a discussion, into which we cannot here enter, he draws up the following chronology of Babylonian Kings on the basis of his deductions.

| | | |
|---------------------------------|---------------|------------|
| Nebuchadnezzar..... | 17 years..... | 1155-1138. |
| Bel-nadin-abal..... | 6 " | 1138-1132. |
| Anarchy during which there were | | |
| 5 unknown Kings..... | 4 " | 1132-1128. |
| Marduk-nadin-akhe..... | 22 " | 1128-1106. |
| Marduk-nadin..... | 1 " 6 m..... | 1126-1124. |
| Marduk-sapik-zir..... | 13 " | 1124-1091. |
| Nabu-sadunu..... | 9 " | 1111-1102. |

CORRESPONDENCE OF THE AMENOPHIS.—Like so many Assyriologists, M. Halévy has taken a hand at translating the Correspondence of Amenophis III and IV, and is publishing a transcription and translation, thus far without commentary, in the *Revue Sémitique* for 1893 and 1894.

BAGDAD.—ANTIQUITIES.—The direction of the Imperial Museum of Turkey has taken all the necessary measures for the careful transference to Constantinople of the slabs and sarcophagi found in the excavation at Bagdad. The assistant-director of the museum, now residing in Bagdad, has been put in charge of the matter. The Bureau of Public Instruction has been informed that the Director of Public Instruction in Bagdad has in his possession various Assyrian archaeological objects, such as rings, carved precious stones, silver coins, etc.,

which were seized when in the hands of certain persons who were sending them out of the country. The Bureau of Instruction gave order to the local authorities to despatch these objects to Constantinople.—*Eorîa*, Oct. 31.

TELLOH.—It is reported from Turkey that in the excavations at Telloh ninety-six tablets in good condition and an inscribed marble have been found. The only description is that the tablets are of terracotta. The excavations, which were begun in March, are being continued.—*Athenæum*, May 19.

PERSIA.

ORIGIN OF PERSIAN ART.—Mr. W. St. C. Boscawen has a note in the *Babylonian and Oriental Record* (March, 1894) in which he suggests a solution of the difficulty regarding the origin of Persian art: or, he should rather have said *sculpture* instead of *art*. The resemblance to and dependence on Assyrian art is indisputable. The only difficulty has been that the Assyrian cities are known to have been in ruins long before Persian sculptors began their work. How, then, was the connection made? Mr. Boscawen says:

"The solution of the problem, I believe, is to be found in a civilization little known, but which exercised a powerful influence upon the Persians, viz., that of the old Armenian Kingdom of Van. The kings of Van came into contact with Assyria during the reign of Asurnazirpal (B. C. 885). At that time they did not possess the art of writing, but, wishing to place records of their reigns upon the rocks near their capital, employed Assyrian scribes to cut the inscriptions for them. The inscriptions of Sarduris I, the son of Lutipri, who reigned B. C. 833, are written in Assyrian, but in a few years the scribes of Van had added the Assyrian syllabary to their own tongue, and we have inscriptions written in the Vannic speech, which presents some affinities with the Georgian. In the reign of Argistesa, contemporary of Sargon II (B. C. 722) the intercourse between Armenia and Assyria was very close, and we find the Armenian artists reproducing in bronze many designs taken from the sculptures at Khorsabad and Nimroud. The British and the Berlin Museums possess many specimens of the work from the great temple of Khaldi, the Armenian national god at Toprak-kalah on Lake Van. In the winged bulls we have artists working to an Assyrian design and producing exactly the same curious male proportioned forms which we afterwards get at Persepolis. In the same way the lions on the shield of Agistis in the British Museum are exactly similar to the figures on the throne of Senacherib, and served as the model for the throne of the Persian kings. Assyrian art remains were not accessible, but their second-hand repro-

ductions in somewhat distorted forms were to be obtained in the palaces and temples of the old Vannic princes."

[This suggestive note seems to indicate the right solution of the difficulty. At the same time other elements must be considered. (1) The *Elamite* monuments which preceded the Persian on the same ground, and which came under strong Assyrian influence at the time of Assurbanipal's conquest; (2) The *Hittite* monuments of the Assyrian type. As has been proved by the excavations at Sinjirli, Hittite monuments became during the eighth and seventh centuries thoroughly Assyrianized, in the same fashion as those of Armenia. Therefore, while not denying Armenian influence in the least, it is quite possible that Assyrian forms found their way into Persian art also through local traditions and the peoples of Upper Mesopotamia and Syria.—ED.]

A PERSIAN INSCRIPTION.—To Mr. H. E. M. James, Commissioner in Sind, the British Museum is indebted for a paper cast of a curious inscription kept as a great treasure in a shrine on Khwājah Khizr Island, opposite Rohri, on the Indus, and jealously guarded from the gaze of the vulgar. The inscription consists of a Persian couplet, which reads as follows:

Chu īn dergāh i vālā shud huveidā—ki āb i Khizr dāred der javāni,
Khizir bā khatt i shīrīn der nivishteḥ—peī tārīkshesh ez dergāh i 'āli.
"When this noble structure shone forth, endowed with the water of

Khizr in [perennial] youth,

Khizr, with graceful script, inscribed for its date the words 'dergāh i 'āli' (lofty shrine)."

In Persian poetry Khizr, the ever-living saint, is always associated with the water of immortality, and in the valley of the Indus he is an object of worship alike to Hindus and Mohammedans. Capt. (the late Sir Richard) Burton in his work on Sind gives an interesting specimen of the Sindhi hymns, in which Khizr is invoked as the tutelary deity of the mighty stream. The Hijrah year 341 (A. D. 952), expressed by the above chronogram *dergāh i 'āli*, and engraved in Arabic figures underneath, is a very early date for the erection of his shrine. On whatever authority it may rest, the above inscription is no contemporary evidence. Its character, an elegant Indian Nestalik, can hardly be earlier than the seventeenth or sixteenth century.—*Athenæum*, June 16.

This inscription is further noticed in the *Athenæum* of June 23.

ASSYRIA.

DISCOVERIES AT MOSSUL.—There is a report from Mossul of the discovery of cuneiform inscriptions and a colossal female statue. Father

Scheil, who is superintending excavations at Bagdad, has been sent by the Imperial Museum to Mossul to examine the statue. The Museum authorities, who used formerly to devote themselves chiefly to Greek antiquities, have now attached Father Scheil to their staff for cuneiform.—*Athenæum*, June 9.

SYRIA.

TWO SEMITIC INSCRIPTIONS OF SINDJIRLI AND THE SEMITIC BELIEF IN IMMORTALITY.—M. Halévy takes the occasion of the publication of the first fasciculus of the German *Ausgrabungen in Sendschirli* in the *Mittheilungen aus den Orientalischen Sammlungen* (XI) to give his view of the language and contents of the two principal inscriptions. A preliminary memoir is published in the *Revue Sémitique* for Jan. 1893. It treats of the inscription of Bar-reakūb, son of Panammu, vassal of Tiglath-pileser (745-727 B. C.) and of the inscription of an earlier Panammu, who reigned some hundred years before and was almost contemporary with Mesha of Moab. M. Halévy's second memoir—far more satisfactory than his first—was read before the *Acad. des Insc.* on Feb. 10 and March 3, 1893.

In the publication of the Berlin Committee the artistic and archæological part was confided to Dr. F. von Luschan, who was really the prime mover in the excavations. The philological part was divided between Prof. Schrader, to whose share fell the Assyrian inscription of Asarhaddon, and Prof. Sachau, who publishes the inscriptions in Phœnician characters.

The excavations were conducted in the spring of 1888, the winter and spring of 1890 and the winter of 1890-91. During this time the expedition had the good fortune to purchase in the neighborhood four ancient statues, one with a Semitic inscription—that of Panammu I. The excavations at Sindjirli itself yielded not only the fine statue of Asarhaddon but two statues with Semitic inscriptions belonging to Panammu II, son of Reakūb.

In regard to the language of the inscriptions M. Halévy seems to be alone (which does not trouble him) in sustaining the Hebræo-Phœnician character of the idiom of Northern Syria in which they are written, while Sachau is upheld by Nöldeke and D. H. Müller in his opinion that the language is archaic Aramæan. However, in Halévy's opinion the ethnographic and linguistic question becomes almost subsidiary in view of the great interest of the inscription of Panammu I for the reality of the belief among Semitic peoples in the immortality of the soul. M. Halévy divides his study into four sections: (1) text with comment and translation; (2) the Hittite language; (3) Hittite history; (4) Hittite-Semitic mythology. We will

here summarize his conclusions, for, however much discussion there may at times be in regard to M. Halévy's caution, there can be none as to the vigor and clearness of his views. What he says is worth listening to. The inscription begins:

"I am Panammu, son of Korul, king of Ya'di, who has erected this statue to Hadad, lord of heaven (?). Hadad, El, Resheph, Rekubel and Shemesh have assisted and led me and . . . have given me the sceptre of his majesty(?) Qorul had consecrated land and a . . . to the gods, but Hadad did not give to his house the power to build, but in my majesty he at once placed the knowledge to build; then I erected structures and set up this stele to Hadad and the place of Panammu, son of Korul, king of Ya'di is with him. In the future, Panammu my son will take the sceptre and sit on my throne and make a feast to his warriors and will offer sacrifices(?) to Hadad . . . and will mention the name of Hadad. Then he who is there will say: 'Let the soul of Panammu drink with thee,' and the soul of Panammu will drink with thee. And at once he will again mention the soul of Panammu with Hadad and Rekubel . . . in this sacrifice, and Panammu will make him acceptable thereby to Hadad, El, Rekubel, Shemesh" The inscription goes on to say that, if the name of Panammu is not thus mentioned on such festal occasions, the soul of Panammu will drink with Hadad all the same, but Hadad will reject the sacrifice and inflict a curse.

The second inscription says: "This stele was erected by Bar-rekub to his father Panammu, son of Barsur, king of Sam'al." It goes on to tell of the misfortunes of his father, the assistance given by his suzerain, the king of Assyria, Tiglathpileser, whom he accompanied to several wars, in one of which he died near Damascus. His body was brought home and this stele erected over his tomb.

Two further inscriptions in archaic characters were found, which belonged to king Bar-rekub. These are recognized by M. Halévy to be in an Aramaic which is the same as that of the Book of Esdras except that the sibilants have not yet become dentalized. Under the heading *The Hittite Language*, M. Halévy takes up the question of the two dialects thus used under the same king Bar-rekub. He regards the Aramean fragments just referred to as merely an official language used by the Assyrian administration, while the other dialect, which he terms Hebræo-Phœnician, is the native idiom of the kingdom of Ya'di. In his opinion, the Semitism of this region carries with it the Semitism of the regions of Syria south of Ya'di—such as Karchemish, Arpad, Halman (Aleppo), Patin, Beth Adin, &c. Consequently, he concludes: "the linguistic homogeneity of all the Hittite land, from the Amanus to the Euphrates, and from Lebanon to Sam'al,

may be confidently admitted, and this circumstance authorizes us to call the language of the Sam'al region simply the Hittite language, without excluding the possible and even probable existence of local variations." This Hittite language belongs to the Hebræo-Phœnician family: the Assyrian administration introduced into it, slowly but with increasing force, Aramaic forms and words which gradually drove out the corresponding native words, until, shortly after the annexation to Assyria in 721, it disappeared to be replaced by Aramaic.

In his study of Hittite history M. Halévy goes back as far as the time of Sargon I (3800 B. C.) and makes ingenious use of the Babylonian documents. He is especially interesting in tracing the phases of the relations of the Hittites to Egypt, and the slow expansion of the Hittite power southward after a repulse from the land of Mitanni in the XVI century B. C. He lays particular stress on the Semitism of the Hittites, a fact announced by him as early as 1886 and now quite generally accepted. Then follows a study of the relations of Assyria to the weakened and divided Hittites and the application by the Assyrians of the name of *Sam'al* to the kingdom of *Ya'di*.

Under the title *Hittite Mythology*, M. Halévy studies the gods Hadad, El, Rekubel, Resheph, Shemesh and Or. Of these, Rekubel and Or are new in the Semitic pantheon, and the latter, as a personification of light, is especially interesting. To these should be added the *Kabiri* who are acolytes of the god Resheph. M. Halévy has a strong personal interest in that part of the inscription of Panammu I which takes for granted the immortality of the soul. He states here how, 22 years ago, he started the controversy in his memoir on the inscription of Eshmunazar, king of Sidon, in which he summarized the Phœnician doctrine as follows: (1) the soul is immortal; (2) the souls of the just inhabit heaven in company with the gods. His thesis was violently opposed by MM. Renan and Derenbourg, according to whom the belief in the immortality of the soul was of Platonic origin, was incompatible with the unadulterated Semitic genius, and could not have existed among the Semites until the time of Alexander. In 1882, M. Halévy made use of the Babylonian documents descriptive of Hades to support his theory, but was opposed by Oppert, who sustained that these ideas were the property of the non-Semitic Sumerians and were unknown to all Semitic races outside of Babylonia. This denial of a belief in immortality is made, of course, to apply to the Hebrews. Now in the inscription of Panammu I it appears (1) that the place of his soul is with the god (Hadad); (2) that the soul accompanies the supreme god even in the sacrifices made to him, and acts as intercessor; (3) that souls "participate in the nature and the privileges of the gods whose habitual *cortège* they form." M. Halévy shows the substan-

tial eschatological agreement in this belief of the four great Semitic peoples—Assyro-Babylonians, Hittites, Phœnicians and Hebrews. In an appendix he compares the Greek and Semitic terms and opinions concerning Hades and its inhabitants.—HALÉVY, in *Revue Sémitique* for 1893 and 1894.

PALESTINE.

JERUSALEM.—NEW EXCAVATIONS.—The chairman of the Palestine Exploration Fund announces that Mr. Frederick Bliss has opened ground at Jerusalem. His instructions were to take up the "Rock Scarp of Zion," and to trace it eastwards in accordance with the description of Josephus. The excavations already made disclose the continuation of the Scarp, with unexpected chambers, passages, stairs, and mosaic pavements, of which it would be premature to attempt any explanation.—*Academy*, June 23.

MESOPOTAMIA.

NOTES FROM THE EUPHRATES VALLEY.—Mr. Hogarth writes from Malatia, May 17, 1894: "Now that we are about half-way in our journey from coast to coast by way of the Euphrates valley, it may interest some readers of the *Athenæum* to know how our archæological exploration has fared.

"After a delay at Tarsus and Adana, due to bad luck and officialdom, we started about a month ago and came straight to Aintab. There is little to record of the road so far. We examined carefully the ruins of Mopsuestia, where the double sites on both banks of the Pyramus show much still above ground, and copied several inscriptions, including a milestone of Valentinian. After crossing the Amanus, we spent a day with Drs. von Luschan and Koldewey at Zinjerli, seeing the different palaces and the medley of monuments, Assyrian, "Hittite," and old Semitic, which that extraordinary mound is yielding up to the spade. The harvest to be reaped in the Zinjerli plain is far from exhausted yet. There are two other mounds upon it in every way similar to Zinjerli itself, from both of which sculptures have been obtained already; and Dr. von Luschan urges strongly the necessity of excavating both. Any one who can obtain the necessary funds will have Dr. von Luschan's cordial co-operation, and in all probability find monuments not less notable than those obtained from Zinjerli. Aintab proved to be a mine of small "Hittite" antiquities, seals, axe and chisel heads, cylinders, and scarabæi, whence obtained I could not learn satisfactorily. One small stone boss, engraved on the two sides with figures of a god and a mortal, accompanied by hieroglyphic legends, is worthy to be compared with any "Hittite" treasure in any

European museum, and several other pieces are of exceptional interest.

"From Aintab we made for the Euphrates, and struck the river at Khalfat. At Samsat, we spent two or three days in the miserable village which now represents Samosata. The ancient city lay immediately about the castle mound, and its limits are still to be seen. The modern village appears to occupy the situation of the legionary camp. We found an altar and two tiles inscribed "Legio XVI Flavia Firma," and a few other inscriptions, but the site is not prolific. I made a copy and impression of the rudely inscribed and much decayed Hittite *stèle* which lies near the castle, but, not having Humann and Puchstein's book with me, cannot tell whether I have improved in any way on their publication.

"The most remarkable relic of ancient Samosata is undoubtedly the great aqueduct by which water was brought some twenty miles from the Kiakhtha river into the town. The stream flows mainly through tunnels, but is carried on arches across the mouths of numerous ravines running down to the Euphrates. These bridges are very massive, and present the appearance of having been strengthened at a period later than that of their first erection by masonry built within the arches. It must be owing to them that an idea prevails that on the Euphrates the Romans defended their frontier by walling up the mouths of the lateral ravines. We followed the aqueduct to its junction with the Kiakhtha, and, after fording the river with great difficulty and some danger, made our way up to Kiakhtha, abandoning, owing to the height of the tributary streams, the project of following the right bank of the Euphrates through the Taurus. Some of the party reached the same place by way of Adiaman, visiting on the way the site of Perre, about two hours distant from that town.

"Kiakhtha lies near two relics of antiquity, each unique in its way: the famous monument on the Nimrud Dagħ, and the great Roman bridge over the Kiakhtha river. The latter has been used ever since the time of Vespasian, and nothing but powerful explosives could ruin it now. Seen either from the roadway, where the massive balustrade and inscribed columns and tablets are before the traveller's eyes, or from below, where the full magnitude of the single arch, 70 ft. high and 115 ft. span, can be appreciated, this magnificent monument of Roman rule, still intact in a wild glen on the extreme limit of the empire, must make a strange impression on any beholder. It carried beyond question the great military road from Melitene through the Taurus to Perre and Samosata, and, indeed, the roadway can be seen running from the eastern end of the bridge up into the mountains. This military highway did not, therefore, take the Adiaman-Besne-

Pulat pass, as has been supposed, but a more easterly line, probably that of an easy path still much used as a route from Adiaman and Kiakhtha, which goes by way of Birmishe and Bekiakr to Malatia, in about twenty hours from the bridge.

"Under the inscription of Julia Domna on the Kiakhtha bridge is a long-erased text of which I made out a letter here and there, agreeing with the formula of Vespasian. Even without that evidence the probability would be all in favour of that emperor being the original builder of this great bridge in the country which he was the first to reduce to the status of a province. The *stelæ* of Septimius Severus and his sons, which are also on the bridge, and the honorific dedications by the four cities of Commagene to Caracalla and Julia Domna, point to the same fact as the milestones on the Caesarea-Melitene road, viz., that an important reorganization of the frontier was made at the end of the second century. Arrived here we were at once told on all sides that a stone five thousand years old had been found a few days back at Ordasu, on a mound called Arslan Tepe, about three miles distant from the site of Melitene. We were taken to view it at the Government House, and there, sure enough, lay a most notable "Hittite" relief with a text in raised symbols running along the top. The scene is a lion hunt; an unmistakably "Hittite" archer, standing in a chariot, draws an arrow to its head. A driver guides a spirited horse, beside which is a dog. In front ramps a great lion, already pierced with a bolt, looking back at his pursuers. The scene is in a sunken panel of white limestone, admirably preserved. Two fragments of another panel were found at the same time, on which a woman sits opposite a goddess, a cross-legged table of offerings being between the two, while on the right is the hinder part of another chariot, in which stands a man in the act of drawing an arrow from the quiver at his shoulder. We shall visit Arslan Tepe before we leave Malatia; there can be no doubt that it is the site of yet another "Hittite" mound-palace, similar to those of Eyuk and Zinjerli, and it is interesting to note that it supplies a missing link on the line of the road from Central Cappadocia, which descends the Tokhma Su, by way of the "Hittite" monuments of Gurun, Palanga, and Arslan Tash, to the Euphrates. The absolutely similar character of these widely scattered "Hittite" mound-palaces of Syria and Asia Minor, and the unmistakable identity of the art displayed on their reliefs, is a very remarkable and significant fact, which is gradually forcing itself into a prominent place in the field of ancient history."

Mr. Hogarth's second letter is dated Trebizond, June 21: "The cholera, of which we had heard rumours when I wrote from Malatia, proved fact, and consequent quarantine cordons interfered consider-

ably with our journey. Nevertheless, we accomplished our main object, the exploration of the actual valley of the Euphrates as far north as Erzinjian, and of the Roman frontier up to Trebizond.

"Very little remains of works of defence. Even in localities which can be certainly identified, such as Zigana (=Ziganna of the 'Notitia'), Zimarra, or Melitene, the station of Legio XII Fulminata, there is no fort or camp now discernible. Near the junction of the Palu Su and the Murad Su, the two main streams which unite to form the Euphrates, we found remains of a fort which may have been Sabas, and near Pingan of another; but little enough is left of either one or the other. Only at Satala are there any considerable remains. If any doubt ever existed that the site of that city was at Sadagh, in the district of Kelkid, we can effectually remove it. In that village we found half a dozen tiles inscribed LEG XV, or LEG XV A, or LEG XV APOL, besides six other Latin inscriptions and a dozen Greek. Needless to add that the identification with the standing camp of Legio XV Apollinaris and the subsequent Byzantine bishopric of Satala admits of no question. The ground plan of the city walls, with towers forty paces apart, is well preserved on the north and east sides of the *enceinte*, and can be traced without difficulty on the west. On the south the modern village has obliterated everything. The latter is built entirely of old stones, and but few fragments of the ancient edifices within the walls have been spared. We made a complete plan of the site, and collected as far as possible the small antiquities in the possession of the villagers. The spot where the bronze head of Aphrodite, now one of the glories of the British Museum, was found, is well known to the natives, and many survive who remember the discovery. The actual finder was still alive when we visited the village, but at the point of death. All told one consistent story that the head and hand only were found, in the process of making a threshing floor, and that nothing had ever been seen of the rest of the statue. I made inquiries also in Erzinjian and elsewhere in the neighbourhood with the same result. The story which has been related of the finding, hiding, and subsequent mutilation of a complete statue is pure fiction.

"The most disappointing, and at the same time most singular thing about the frontier remains is the paucity of traces of a military road. Of an actual roadway we found no certain trace at all; paved tracks are to be seen on the hills both north and south of Keban Maden, and not far south of Egin, but of later than Roman date. Not a milestone did we find in the Euphrates valley, with one single exception, two miles from Melitene on the road to Sebasteia. If it were not for the remains of bridges over the Angu Chai and the Kara Budak, we could say that we had found nothing certainly Roman between the Taurus

and Satala. Only abutments remain of the bridge over the Kara Budak, one of the most important of the right-bank tributaries; but on the rock hard by is cut an inscription of the Emperor Decius, from which we learn that the stream was known, like our own Severn, as the Sabrina.

"We have seen too much of the valley with our own eyes, and asked too many questions of the natives, to have missed an existing road. While milestones or traces of an ancient roadway have been found on all the lines of communication with the West, *e. g.*, Satala-Nicopolis, Nicopolis-Sebasteia, Melitene-Sebasteia, and Melitene-Cesarea, no such traces remain along the actual frontier line. Looking to the mountainous character of the Euphrates valley, again and again narrowing to a mere fissure with rocky walls, backed by snow-clad peaks, it is impossible to suppose that an ancient road can ever have run down its entire length. The two bridges which we found are situated some distance up the tributaries, and the roads approaching them must have been carried over the hills. Such roads, however, we must infer to have been little more than tracks, unpaved and unmeasured; the emperors contented themselves with bridging the unfordable tributaries, and connecting only the legionary camps with the interior by means of military *chaussées*. The apparent inadequacy of such a scheme of works to have defended so long the Eastern frontier of the Empire would not occur to any one who had seen much of the Euphrates itself. An absolutely unfordable river, flowing at a rate of seldom less than five miles an hour, in one long succession of dangerous rapids, never less than two hundred yards, and often quite a mile broad, emerging from one frightful gorge only to enter another, is a natural barrier, needing but a very thin line of human defence.

"We visited Tephrike, the modern Divrik, but found no relics of Paulician times. The magnificent Seljuk mosque there possibly contains older material, but for the rest Divrik is new. Kemakh, once the great frontier fortress Camacha, has more to show; the modern town has descended to the riverside, leaving the Byzantine city to fall to ruin on its perch above. Not only the walls and fortifications but even the streets can be easily traced; the town must have been one of the strongest in the ancient world, built as it is entirely on the broad top of an isolated crag, rising sheer on all sides two hundred feet. No approach is possible except by zigzags or steps cut in the face of the rock. We were unable to find any epigraphic evidence *pro* or *con* the proposed identification of Camacha with Theodosiopolis; but at least we can say that there is no reason whatever from existing remains to suppose that the latter was at Erzinjian, or, indeed, on any site in this neighbourhood other than Kemakh. Of the geographical results of our journey I hope to give an account shortly."—*Athenæum*, July 14.

ASIA MINOR.

ARABIC EPIGRAPHY IN ASIA MINOR.—We have already had occasion to refer to the mission confided to M. Clement Huart by the French Ministry of Public Instruction. M. Huart visited Asia Minor in 1889–90 for the purpose of studying the monuments of the Seldjuk period. In a paper contributed to the *Revue Sémitique* (1894, Jan. and April) M. Huart publishes, translates and comments on the Arabic inscriptions which he then copied. They belong to the period of the Seldjuks of Roum, the princes of Karamân and Kermiyan and the first Ottoman Sultans. The first are on the route from Brussa to Konya through Kutahiya and Afyûn Kara-Hissar. At In-Eunu is an old mosque with an inscription over its door showing it to have been built in 1369 A. D. under Ali-bey, prince of Kermeyan, by his son. It reads: *The generous, the benefactor, Khodja Yâdikayar, son of Sultan Ali, in the year 771 (=1369 A. D.).* This inscription shows that the Ottoman territory extended but little to the south: probably this town was on the very northern frontier of the state of Kermiyan. The mosque is a square structure surmounted by a dome, preceded by a portico with ancient columns and flanked by a minaret, all of brick.

A long inscription over the entrance to the mosque of Eski-Shehir shows it to have been built in 921 of the Hegira (=1515–16) by Mustafa Pasha, brother-in-law to Sultan Suleiman, who also built the mosque of Guëbizê. At Kutahiya an inscription over the door of the mosque called Kurchûn-li Djami shows it to have been erected in A. H. 777 = A. D. 1375–76 by an Emir whose name is mutilated. At the same place and in the same year the mosque called Kal'ê-i Bâlâ was built, according to its inscription, by the Sultan of Kermiyan, Seid Suleiman. Another mosque, the *Yakub-Tehelobi*, was repaired by a jurisconsult named Ishâk in A. H. 837 = A. D. 1433–34. Over the door of another mosque which is considered the oldest in Kutahiya is an inscription saying that it was built by order of Emir El-Ekrem in A. H. 783 = A. D. 1381–2.

At Afyûn Kara-Hissar is the first Seldjuk inscription on the road of Konya, dating from Sultan Ala-eddin Kai-kobad I. At Tshai on an ancient caravanserai a distich records its construction under the Sultan Ghiyath-eddin Kai-Khosrau II and its date is 657 = 1258–9, whereas it is now known that this sultan's reign ended in 644 = 1246, when through his defeat by the Mongols the Seldjuks of Roum became the vassals of the empire of Karakorum. Another inscription over an ancient college-building records its construction by apparently the same sultan.

At *Ishakli* is an imperial caravanserai (Khan) whose inscription states it to have been rebuilt in A. H. 607 = A. D. 1210–11 by the Sultan

Izz-ed-din Kai-Kâûs I, who began to reign in this year and died in 616 = 1219 after an interesting, checquered and warlike career. Over the exterior door of the same caravanserai is an inscription of which we give M. Huart's translation as a sample of the style of this class of documents:

"[Has erected] this structure and blessed caravanserai, in the reign of the magnificent Sultan, great King of Kings, ruler of nations, Sultan of Sultans of the Arabs and Persians, Izz-ed-dunya w'eddin, helper of Islam and Moslems, the victorious Kai-Kâûs, son of Kai-Khosrau, son of Kai-Kobad, the co-partner of the Prince of the Faithful (may Allah make his dominion eternal!), the weak slave, El-Mir, son of him who has need of the mercy of Allah, Boghâ . . . Ali, son of El-Hassain (may Allah give him a good end!) in the year of the Pig of the Oûigours, the year 647 (= 1249-50)." M. Huart takes the occasion of this text to give an historic analysis of the reign of Kai-Kâûs II, who succeeded his father of the same name in 644, but was soon opposed and his territory dismembered by his brothers Kylydj-Arslan IV and Kai-Kobad II. The arrangement was made an amicable one by the magnates, and the triple rule lasted from 647 to 655, but with intervals of discord.

The articles of M. Huart are to be continued.

BENNDORF'S JOURNEY TO LYKIA.—M. Imbert calls attention to the important historic facts to be gathered from Benndorf's last journey to Lykia, which as yet have not been by any means completely published. He dwells especially on an epitaph found at Port-Sevedo ending with: "The master is hyparch of *Vatapradate*." This is evidently the Persian satrap Autophradates, with whom the king of Persia regained his authority over Lykia.

AUSTRIAN EXPEDITION.—An addition to the archæological parties in Asia Minor this season, already mentioned, is that of Messrs. Émile Sonto and Edward Oula. They will visit Mazin, the ancient Heraclea, Alabanda, Halicarnassus, Mylasa, Stratoniceæ, Lagina, and Mooghla, in Southern Caria, in continuation of the last year's explorations of Profs. Koobichek and Raichel in Eastern Caria.—*Athenæum*, June 16.

FIDESH.—Excavations are going on at a place called Fidesh, in the caza of Homs, in Asiatic Turkey. They are under the direction of M. Gratier, a French architect, but all objects excavated are to go to the Imperial Museum at Constantinople.—*Athenæum*, June 16.

TURKEY.

CONSTANTINOPLE.—**ADDITIONS TO THE MUSEUM.**—A large collection of Byzantine coins has been purchased, and a catalogue of it is about to

be published. The department of antiquities is to receive more room by the erection of a new wing to receive the sarcophagi and other objects found at Gortyna and the antiquities from Pergamon.—*Athenæum*, March 17.

A department for Mussulman antiquities is about to be opened in the museum. It includes porcelain work from the mosque of Karaman, boxes and other articles inlaid with mother-of-pearl, glass lamps, and Kutahiyeh pottery.—*Athenæum*, Sept. 23.

The new class of Mussulman museums springing up is making rapid development. That at Paris has already acquired importance and is receiving additions. In Constantinople the new department is now put in communication with the Ministry of Pious Foundations, which is securing relics of antiquity in remote or decaying mosques and buildings. At Cairo an earnest effort is being made to save the neglected treasures. Perhaps South Kensington is entitled to the credit of being the first to set the example of cultivating this branch of collection, and possesses some of the choicest objects of Mussulman and Oriental art.—*Athenæum*, Dec. 16.

Among the additions to the museum, to be made soon available to the public, is a library. This consists chiefly of archæological works which are illustrative of the antiquities below. A natural history department on the upper floor is now being classified and arranged.

Formerly there was little for the tourist in the Levant in the way of museums, but now there are those of Constantinople and Athens, well worthy of inspection, and small museums at Smyrna and Syra. The latter, little known, contains some curious Christian antiquities.—*Athenæum*, Feb. 11.

HISTORY OF ART IN TURKISH.—Mehemed Zia Bey, teacher in a school at Rodosto, has written in Turkish "An Art History," and the Sultan has sent him a decoration.—*Athenæum*, Jan. 14.

KERBELEH.—The Sultan has ordered the famous shrine of Kerbeleh to be restored.—*Athenæum*, March 11.

KYPROS.

RECENT ARCHÆOLOGICAL WORK.—Mr. Myres sends the following notes to the *Athenæum* of June 9: "The excavations on behalf of the British Museum, which were carried on at AMATHUS (Palaio Limesso) during the winter, came to an end in March, and the bulk of the antiquities will reach England shortly. Some of the objects found are of considerable interest, but comment must of course be reserved until the publication of the official report. The share which fell to the Cyprus Government will shortly be exhibited in the museum at Nicosia.

"The balance of the Cyprus Exploration Fund was lately handed over to the British School of Archæology at Athens, and it has been found possible to carry out a few small excavations with this help. The first trial was made in the well-known necropolis of AGIA PARASKEVË, near Nicosia, with the view of verifying recent statements as to the succession of styles in the primitive pottery there. The necropolis has been already so thoroughly ransacked that very little of intrinsic importance was found, but it became evident that no hard-and-fast line can be drawn between classes of tombs, as the most primitive forms and workmanship are frequently associated with the most advanced. Nor is it by any means clear that the style of the painted vases is always influenced by Mycenæan importations, or by the so-called 'Phœnician bowls.'

"A similar but smaller and poorer necropolis has been discovered and explored near KALOPSIDA, about twelve miles west of Famagusta. The pottery is of coarser workmanship throughout than at Agia Paraskevè, but presents some features peculiar to itself. Imported pottery seems to be rare. Bronze weapons of several types are found—a few of unusual size. Iron is as usual unrepresented, and silver ornaments are very rare. Traces seem to exist of a settlement and pot-kiln associated with this necropolis.

"A few trenches have been opened on a promontory in the *Salt Lake* near LARNACA, which had attracted the attention, formerly, of Colonna Ceccaldi and of Sir Charles Newton. The site, however, proved barren. On the other hand, a mound, also close to the Salt Lake, which seems to have been trenched by General di Cesnola on the advice of Ceccaldi, but of which no adequate account exists, has yielded several more short Phœnician inscriptions—two of them *graffiti* on black-glazed pottery—and the ground plan of a building of uncertain date and purpose.

"Digging still goes on here in the necropolis of KITION, on the site where the Phœnician inscription, now in the British Museum, was found some twelve years ago. A similar inscribed *stèle* has been found already, built into a Roman tomb.

"Dr. Max Ohnefalsch Richter, whose contributions to Cypriote archæology are well known, has lately returned to Cyprus to conduct excavations at DALI (Idalion) on behalf of the Berlin Museum. Little of importance had been found before digging was stopped by the harvest. Prof. Furtwängler is expected immediately, and work will shortly be resumed.

"The magnificent Gothic church of St. Nicholas at FAMAGUSTA, which has served as a mosque since the Turkish conquest, has been long in need of repair; and it is matter for congratulation that the

authorities of Evkaf (Mosque Estates Commission) are doing what is needful to prevent further damage. The nave vaulting and clearstory walls have been examined and repaired; and the great west window, and the other windows of the nave in which original tracery is preserved, have been cleared of lattice and plaster, carefully strengthened, and filled with cathedral glass. No 'restoration' has been attempted in the windows which have lost their tracery. It is much to be hoped that when the pavement is attended to it will be possible to protect the many valuable inscriptions from the wear and tear to which they are exposed, especially near the doors.

"In this connexion, the appearance of Major Tankerville Chamberlayne's collection of the mediæval inscriptions in Cyprus will make accessible a great amount of hitherto unpublished material, both in text and in commentary. The book is entitled '*Lacrimæ Nicosienses*'; it is written in French, published in Paris (Quantin), and handsomely printed and illustrated. A second volume is in preparation.

"Mr. C. D. Cobham has just finished a third edition of his invaluable '*Attempt at a Bibliography of Cyprus*' (Nicosia, Government Printing Office, 1894). The number of titles has risen from 309 in the edition of 1889 to 497; and new lists of maps of Cyprus and of Consular Reports have been added."

KRETE.

A MYCENÆAN SYSTEM OF WRITING IN CRETE AND THE PELOPONNESE.—Under this title Mr. Evans writes from Candia in Crete a letter of which we reproduce the greater part from the *Athenæum* of June 23, in view of the importance of its statements: "I have just returned to this place after a journey of archæological investigation in Central and Eastern Crete, the results of which will, I think, be of general interest. The wider object that I had in view was to hunt up the Mycænæan and primæval remains of the island, and in this quest I was rewarded beyond my expectations and even beyond my hopes. Crete, indeed, may be said to swarm with remains of the Mycænæan period, and a six weeks' search, accompanied by somewhat arduous travel, has been sufficient to obtain a knowledge of relics and remains which throw some entirely new lights on the art and religion of the Mycænæan peoples. But on the present occasion I cannot even attempt a summary account of the more general results of my exploration, which include the discovery of two prehistoric cities, as I wish to confine myself to the more special object that I had in view. The special object of my quest was the outcome of a previous find made during a visit to Greece in the spring of last year. On that occasion

I came across some small three and four-sided stones, perforated along their axis, on which had been engraved a series of remarkable symbols. The symbols occurred in groups on the facets of the stones, and it struck me at once that they belonged to a hieroglyphic system. They were, however, quite distinct from Egyptian in character, and, though they seemed to show a nearer approach to the Hittite series, it was evident that they belonged to an independent system. My inquiries resulted in tracing these curious stones to a Cretan source; subsequently, thanks to the kindness of Dr. Furtwängler, I was able to obtain impressions of some similar specimens in the Museum at Berlin, presenting symbols which fitted on to and supplemented the symbols I had already obtained. In this case, too, the source of the stones, as far as it was known, turned out again to be Crete. The impression of a gem taken at Athens some years since by Prof. Sayce supplied another piece of evidence; and I found that an unclassified stone in the Ashmolean Museum, which had been brought back by Mr. Greville Chester from Greece, and noted by him as having been found at Sparta, presented symbols belonging to the same series as the others. The evidence as a whole, however, distinctly pointed to Crete as the principal source of these hieroglyphic forms, and I therefore resolved to continue my investigations on Cretan soil.

"At Candia I obtained a certain clue which led me to examine more particularly the eastern part of the island and the land which to the borders of the historic period was still inhabited by the Eteocreates, or indigenous Cretan stock, a fragment of whose language in archaic Greek characters has, in fact, been preserved to us in an inscription found on the site of Prasos. On this site, and again from the 'Paleo-kastro' in the neighborhood of the ancient Itanos, I was so fortunate as to procure two hieroglyphic stones, and I subsequently obtained three more from the same region. Two others found in the same part of Crete are now in the Polytechnicon at Athens; but, although the evidence thus points to this eastern region as the principal source of these stones, they are by no means unknown in other parts of the island, and, amongst other localities, I succeeded in obtaining one from the site of Knosos.

"The total result of my investigations hitherto has been to collect over eighty different symbols. It is difficult to give an idea of many of the types without adequate illustrations, but the following objects may be enumerated among those represented:

The human eye. A bent arm with expanded fingers. A bent arm with curved instrument. Two arms crossed, with open palms. A human leg with bent knee. A single and double axe. A dagger. A club or sceptre. An arrow head and other uncertain implements. A spouted vase and another with a high beak. Trel

lis-work or fence. A door or gate. A ship. A primitive lyre (apparently developed from a horn bow). The head of a wolf with his tongue hanging out (also Hittite). Deer-horns. The head of a bull, of a goat, and (apparently) of a bird. A pig and a kid. Birds. Fish, perhaps tunny. The jaw of an animal. Stars of four, eight and revolving rays. A double crescent. Two concentric circles with central dot. An S-shaped symbol. Floral and vegetable forms derived from lily, etc. Loop and knot-like symbols, crosses and other geometrical designs.

"There is no question here of the mere copying of Egyptian hieroglyphs by workmen ignorant of their true signification, as in the case of a well-known class of Phœnician objects. Neither have we here to do with the adaptation of Hittite symbols. Although, as was to be expected, certain objects represented in the Cretan stones—such as the eye and leg, the single axe, and the heads of certain animals—are common to the Egyptian or the Asianic systems, the whole character of the present series shows that it is, in the main at least, of independent development. Certain fixed principles, moreover, are observable in the arrangement of the symbols in the several groups. Some objects are found only at the beginning or end of the columns. Others occur in the same juxtaposition on different stones. We have here to do with a very different class of objects from the merely supplemental figures found in the field of certain Mycenæan gems of lentoid or amygdaloid form, gems which, as we now know, served the purpose not of seals, but of ornamental beads worn round the wrist or neck. In the case of these gems the objects in the field are inserted as the space left by the principal design suggests, and are simply due to the *horror vacui* of primitive art. But there is every reason to suppose that the faceted stones with their regularly arranged groups of symbols served the purpose of seals, and were, as it were, the angular contemporaries of Babylonian cylinders.

"The form of the three-sided perforated stones goes back in Crete to a very early period, and certain gems of this form with rude designs, which must be regarded as the immediate precursors of the 'hieroglyphic' series, belong to the age which immediately preceded the development of the typically Mycenæan art, and which in Ægean archaeology may best be described as the 'Period of Amorgos.' The remains of this period—including the primitive marble idols that characterize the Amorgan deposits—are well represented in Crete. A very interesting series of objects of this class recently found at Phæstos, and evidently representing the contents of a small group of tombs, have been deposited in the extremely interesting little museum that Cretan patriotism has founded at 'Heraklion.' Amongst these I noticed some indications of the highest chronological importance, the presence, namely, of several Egyptian scarabs belonging to the twelfth

dynasty, and, as a *terminus a quo* in the other direction, a painted vase, the technique of which showed that it was more or less the contemporary of the vases of Thera. The data thus supplied indicate roughly 2500—1800 B. C. as the period covered by the Phæstan deposits, and among them occurred some triangular steatite gems of the kind which I have already indicated as the immediate predecessors of those presenting the hieroglyphic symbols. In some cases, indeed, what appear to be the most primitive examples of the symbols themselves are found on stones belonging to this early period. On the other hand, there is distinct evidence that the fully developed class of hieroglyphic seals comes well within the limits of the Mycenaean period of Cretan culture. This is borne out by the occurrence of a more globular variety of the triangular stones with Mycenaean figures, and the further existence of a peculiar class of stones, the back of which has a spiral convolution, the outgrowth of a double-shell ornament of the 'Amorgan period,' on which symbols belonging to the present series alternate with purely Mycenaean designs.

"But this Mycenaean system of writing passed through another phase besides the more pictographic stage with which I have been hitherto dealing. On some of the three- and four-sided stones of the class described the symbols take purely linear forms, though their shapes can in some cases be clearly traced to their pictorial prototypes. I have procured stones with inscriptions of this class from Prasos and the Siteia district, but they are by no means confined to this eastern region. Another was found on the site of Knosos, and linear characters of the same class occur beneath a characteristically Mycenaean engraving of an eagle, on a remarkable amethyst jewel of heart-shaped form, also found at Knosos. And, in the case of these quasi-alphabetic forms, I have been able to trace the extension of the system to other objects and materials. Whilst exploring the ruins of the prehistoric city of Goulas, which in extent and preservation far surpass those of any other city of the Mycenaean world, a most remarkable piece of epigraphic evidence came across my path. A peasant who had a little cultivated patch immediately below the walls of the northern acropolis pointed out a spot where he had recently discovered close together three ancient relics, which he handed over to me. One was a Mycenaean intaglio of cornelian, the chief design of which was a two-handled cup, the copy, no doubt, of a golden original. The second was a terracotta ox of a type common in late Mycenaean deposits throughout the island, and approximately dating from the tenth century B. C. The third object was a clay cup of the same period, exhibiting a *graffito* inscription of three alphabetic characters. From a village near this site I obtained a vase with two more *graffito* symbols belonging to the

same system, one of them the double axe-head of the hieroglyphic series reduced to a linear form. Nor is it only on seals and ceramics that this early system of writing makes its appearance. On a bronze double-axe I found engraved a linear reduction of the dagger symbol of the hieroglyphic series. Certain symbols had already been observed, by Mr. Stillman and others, on the gypsum blocks of a prehistoric building on the site of Knosos, which may or may not have been the 'labyrinth' of classical tradition, but which, from the painted fragments found in some of its chambers in the course of a partial excavation by Mr. Minos Calocherinos, of Candia, unquestionably belongs to the best period of Mycenaean art, and approximately, as is shown by the strikingly similar fragments found by Mr. Petrie in the palace of Khuenaten, to the fourteenth or fifteenth century B.C. Of these symbols, which have been set aside as mere masons' marks, I made a careful study, and find that, though there need be no objection to describing them as 'masons' marks,' the marks themselves, like those on the Phœnician walls of Eryx, are of alphabetic character, and fit on to the same system as those on the pottery and seals. In several cases, indeed, they occur not singly, but in groups of two, and here again the double axe-head reduced to linear form plays a prominent part. One feature I noticed of especial interest—the occurrence, namely, of a symbol which may be described as a square with three prongs, identical with one that recurs on one of the two vase-handles presenting mysterious signs found in Mycenæ itself. I do not hesitate to say that these Peloponnesian examples fit on to the same (probably syllabic) system as the Cretan.

"In another direction these early alphabetic forms of Crete find some equally striking parallels. Several of them recur among the signs on the potsherds found by Prof. Petrie at Gurob in a deposit assigned by him to the period of the twelfth dynasty, and again at Kahun amongst eighteenth-dynasty relics. The Cretan evidence, indeed, supplies a remarkable confirmation of Mr. Petrie's views as to the extremely early date of some of these symbols. As already stated, the relics from the prehistoric graves of Phæstos show that already in the days of the twelfth dynasty there must have been a direct contact between Egypt and Crete. The earliest of the triangular stones with hieroglyphic signs belong to this period, and among the Phæstos deposits there occurred a green steatite of perforated and rudely whorl-shaped form, presenting characters so remarkably alphabetic that it is difficult at first sight to believe in their extreme antiquity. They are, however, accompanied by a rude design of an animal, executed by the same hand as the linear signs, which unquestionably belongs to a very archaic period of Cretan art. From Siphnos, again, I have a stone of

the same kind engraved with similar characters, the style and material of which carry it back to the same early period. The alphabetic forms of the Cretan symbols are found, moreover, on some triangular and quadrangular stones belonging to the same age as others with purely pictographic signs. This phenomenon makes it necessary to speak with caution as to the relation in which the linear forms stand to the more purely pictographic. It is evident that though typologically the pictorial characters are the earlier, and though in several cases the more alphabetic types obviously represent 'hieroglyphs' reduced to linear outlines, there was a distinct overlapping of the two classes. In the case of many of the characters of the linear style the parallelism with Cypriote forms is most striking. That several of these Mycenaean characters are identical with those of the Cypriote syllabary is certain; on the Goulas cup, for example, the Cypriote *pa* and *lo* occur in juxtaposition. On the other hand, as in the case of the third symbol on the same vase, there are several characters of the Cretan series which are not found in the Cypriote as at present known to us. It is unfortunate that our knowledge of the Cypriote syllabary begins so late.

"But it is not in Cyprus only that the Mycenaean system of writing shows points of contact with the monuments of later Greek epigraphy. Prof. Halbherr, who is now in Candia, has made to me the valuable suggestion that some of the characters brought to light by the present investigation have influenced the forms of certain Greek letters found in the most archaic Cretan inscriptions, while in other cases they seem to have actually survived as marks of division. The *o* with the concentric circle and dot found on the early inscriptions of Lyttos, and a form of *eta* peculiar to Eleutherna, seem to be instances of the first phenomenon, while the operation of the second is attested by the appearance of the double-axe symbol as a mark of division both at Lyttos and in the great inscription of Gortyna.

"To resume. The evidence supplied by these Cretan finds shows that, long before the time when the Phœnician alphabet was first introduced into Greece, the Ægean islanders, like their Asianic neighbours, had developed an independent system of writing. Of this writing there were two phases, one pictographic and much resembling the Hittite, the other linear and distinctly alphabetic in character. This latter system was certainly a syllabary, in part at least identical with that of Cyprus, perhaps, indeed, its direct progenitor. There are indications that both these systems extended to the Peloponnese, though Crete seems to have been its chief centre, and there can be little doubt that they were made use of by such members of the Hellenic stock as came within the range of 'Mycenaean' culture. I do not think that it is too much to say that the *σῆματα λυγρά* of Homer are here before us."

GORTYNA.—PRESERVATION OF THE GREAT INSCRIPTION.—The inscription of Gortyna, found in 1884, is exposed not only to the stress of weather and to the destructive action of the water of a canal which passes over it, but even to the more serious danger of being destroyed by an ignorant or malicious hand. To save this inscription by transporting it to a safe place, the Greek Syllogos of Candia invites the aid of scholars. To buy and transport it will cost about 10,000 fr. The Syllogos will invite to Crete a capable workman to make a cast of the inscription, and to each museum which contributes \$100, a cast of the entire wall which contains the inscription will be delivered, free of expense, at Brindisi, Trieste, Genoa, or Marseilles.

The Syllogos may be addressed through its president Dr. Joseph Hazzidakis, or its secretary Prof. S. Xanthoudidis, at Candia.

EUROPE.

GREECE.

THE BRITISH SCHOOL AT ATHENS.—The presence of two Cabinet Ministers at the annual meeting of the subscribers to the British School at Athens, held July 12, in London, may raise hopes, in those who are interested in archæological research, that aid may be given from public sources to the school, so as to place it on an equality of means with the French, German, and American schools, especially as Lord Rosebery has given £200 out of the Royal Bounty Fund.

The hon. secretary, Mr. George A. Macmillan, read the report of the managing committee for 1893-4, which stated that, though the number of students was rather below the average, and the one piece of excavation undertaken, (on the site of Abai) was hardly so fruitful as had been expected, the school had held its own, and had attracted more pecuniary support than in any recent session. After a short account of the work of Mr. A. G. Bather, Mr. E. F. Benson, Mr. J. L. Myres, Mr. V. W. Yorke, Mr. D. G. Hogarth, Mr. E. R. Bevan, Mr. Gilbert Davies, and Mr. Arkwright, the report said that the site of Abai, in Phokis, was chosen for excavation after very careful consideration. It was famous for its oracle, and reference was made, not only by Pausanias, but by Herodotus and Sophocles to the oracle, the fortress, and the temple of Apollo. The indications on the spot seemed full of promise, but after some three weeks' work, carried on in very severe weather, the excavators succeeded only in laying bare the plan of the temenos, with a temple, a *vaivikos*, and a stoa. The whole place must have been sacked, for of sculpture only a few late fragments were discovered, and a few inscriptions, mostly of Roman date. Some bronze bowls of early technique were the only artistic product of much

importance. On the adjoining site of Hyampolis some inscriptions were found, but nothing else of consequence. Mr. Benson had made an encouraging report on the prospects of archæological discovery at Alexandria, but for this purpose there were not anything like adequate funds. There was, however, an active archæological society in Alexandria itself, which had already done no small amount of work with very limited funds. Arrangements had happily been made to prolong the services of the director, Mr. Gardner, whose college fellowship and Craven studentship had expired, and who would, in the absence of further aid, have been obliged to resign. But by the efforts of Mr. Egerton, the British Minister at Athens, and others, the committee had been able to reappoint Mr. Gardner for one year only at a salary of £500. A special fund was being privately raised to meet the additional expenditure, and most opportunely a grant of £200 had been made to the school by Lord Rosebery from the Royal Bounty Fund.—*London Times*, July 12.

DEME-LEGENDS ON ATTIC VASES.—Mr. Cecil Smith read a paper at the meeting of the *Hellenic Society*, on Feb. 20, on "Deme-Legends on Attic Vases." When, in the sixth and fifth centuries B. C., a Pan-Athenian genealogy was forming at Athens, the vast multiplicity of local and private cults became merged in the orthodox beliefs; but many a deme probably cherished quietly the remembrance of its local hero, and of these less-known cults we may expect to find traces, especially in the homely art of the vase-painter. A vase in the British Museum of about B. C. 500 represents one such scene. It shows a youth departing from an old man, his dog carrying in its mouth the thigh of an animal. This is the story of Diomos, the eponymus of the deme Diomeia. Hesychius and Suidas relate, *s. v.* "Cynosarges," that Diomos was sacrificing, when a dog seized the thigh of the victim; the hero was told to follow the dog, and where the dog laid down the thigh there to set up an altar to Herakles, hence the name Kynosarges ("white dog" or "swift dog"). The old man in the scene is Kolyttos, the eponymus of the adjoining deme Kolytteia, and father of Diomos. Possibly the painter himself belonged to the deme Diomeia. That vase-painters were partial to their own local legends we see from the frequent occurrence of Akamas, the eponymus of the tribe Akamantis; the name of this tribe is twice mentioned on vases, and is the only one so found; it was the tribe to which the potters' quarter belonged. On the celebrated Kodros cup we have the principal type of scenes which became frequent in the fifth century B. C., and which were intended to illustrate the legendary history of the great Attic families and tribal divisions. The Meidias hydria has one such scene which has hitherto escaped notice; it has been called a scene from the

"Argonautica," because of the presence of Medeia, and of a seated kinglly figure inscribed A....Σ, who has been called Aietes. The name, however, clearly reads Akamas; Medeia is the Attic heroine of that name who occurs (in Phrygian dress also) on the Kodros cup; and among the other figures are Antiochos, Hippothoön, and Oineus. We thus have on the Meidias vase the eponymi of no fewer than four of the twelve tribes, Akamantis, Antiochis, Hippothoöntis, and Oineis, amongst whom Akamas, as the special hero of the potters, holds the pride of place.—*Athenæum*, Feb. 25.

HARPIES IN GREEK ART.—Mr. Cecil Smith read at the *Hellenic Society*, on Feb. 20, a paper entitled "Harpies in Greek Art." By a confusion of ideas it is still constantly asserted that the Greek harpy had sometimes the body of a bird, like a siren; this error has arisen from the fact that in the adaptation of Greek myths to Roman ideas these two types in Roman times had exchanged rôles, the siren reappearing as a draped woman, the harpy as a bird-woman. Throughout Greek art proper the type of harpy is invariably a winged woman, and therefore the famous "harpy tomb" from Xanthus is wrongly named; the bird-women on this tomb are really sirens, performing functions akin to those which we usually see on Greek sepulchral monuments. Through all Greek times harpies are associated with the idea of wind, of great speed, and disaster; the Homeric idea is indeed in this myth, as in others, a fault in the stratification; here their number is not stated, they are associated with the idea of the snatching of death, and this death is regarded as inglorious. Probably, with the later modified notion of death, the harpies retained only the repellent part of their character, and were consequently no longer regarded as sepulchral. Hesiod makes them two in number, Aello ("Stormwind") and Okypete ("Swift-flyer"); and from other passages we see that the myth wandered throughout the Peloponnesus, the Ægæan, and up to the Hellespont. One of the earliest representations of them on vases is a cup of Kyrenæan fabric, which shows us the Hesperid Kyrene; on one side of her fly several bearded figures (Boreades) as if to protect her from the harpies on the opposite side. It looks as if this phase of the myth, in which harpies and Boreades are opposed in an allegorical nature-symbolism, had grown up at Kyrene, or at any rate on the north coast of Africa: here the north wind coming from the sea assists vegetation, the wind coming from the desert destroys it. The trade relations of Kyrene would account for the localities over which the myth wandered; in its more northern home, however, the myth required modification, inasmuch as there the beneficent character of Boreas is not so obvious, though the harpy still remains the parching south wind; hence in the Hesiodic theogony (which corresponds with Peloponnesian types of

art) the harpies have for their sister, not another wind, but Iris the rain-giver. Meanwhile, the traditional type of opposing Boreades and harpies passed on into the Phineus legend, but with its old significance as a nature-symbolism lost; the only instance of its direct connexion with nature-symbolism is the Würzburg cup. This cup has on one side the Boreades driving away the harpies (both represented exactly as on the Cyrenæan cup) from the food of Phineus; on the reverse, Dionysos, Seilenoi, &c.; the whole being an allegory of the joyful reawakening of Nature after the expulsion of the forces hostile to her. The symbolism of nature is an idea specially at home in Egypt and the adjoining countries; for this reason, and considerations of technique, the Würzburg cup may be attributed to one of the Græco-African colonies. The same contrast of ideas is found on a situla from Daphnæ. On the obv. side is the archaic snake-legged figure of Boreas among plants and foliage; on the rev., a figure which is certainly a harpy; beside the harpy are shown a locust (*Acridium peregrinum*), and a vulture and two carrion crows attacking a hare. The locust is frequently found on coins and vases, as symbolizing the destruction of vegetable life; the birds represent the destruction of animal life. A parallel usage is found on the vases of "Cæretan" fabric, which have already been attributed to Egyptian influence. The association of the carrion crow and vulture as destructive agents is traceable all through art, from the early reliefs, in which they devour corpses on a battlefield, downward; the latest example is on a patera of the third century A. D., on which they are still associated with the land of apes and negroes.—*Athenæum*, February 25.

ABAI (PHOKIS).—EXCAVATIONS BY THE ENGLISH SCHOOL.—The somewhat disappointing excavations carried on here during the past season by the English School were briefly described at the annual meeting of the subscribers to the British School, to our account of which we refer the reader.

This sanctuary was the seat of one of the principal oracles of early Greece, and is mentioned by Sophocles (*Edipus Rex*, 899) in a passage which seems to imply that it ranked with Delphi and Olympia as an important centre of worship. The oracle was consulted by Croesus and Mardonius, and according to some authorities was even older than Delphi. The site of the temple was recognized by Leake; and the remains now visible, though probably belonging to a later restoration, undoubtedly determine the situation of the ancient structure, which was destroyed by the Persians. Many antiquities are said to have come from this site; and a promising indication is supplied by Herodotus, who states that the temple was richly endowed with

votive offerings. In addition to the excavations at Abai, researches will be carried out by the British school in Cyprus and Asia Minor.

AIGINA.—The Athenian Archæological Society has decided to undertake excavations in the island of Aigina, on the site of the ancient temple famous for the pedimental sculptures now in the Glyptothek of Munich. From Aigina came the rich golden treasure recently acquired by the British Museum.—*Athenæum*, July 7.

ATHENS.—GREEK ARCHÆOLOGICAL SOCIETY.—The Archæological Society of Athens—which since the transference of its collections to the Greek Government has been occupied in revising its statutes, with the idea of putting itself on a new basis, introducing public sittings, and founding a Greek school after the fashion of the foreign archæological schools at Athens—has decided to undertake operations at Dipylon, near Hagia Triada. The new excavations will be a valuable continuation and completion of the previous ones, which led to the discovery of such beautiful sepulchral ornaments. In the new explorations the little church of the Hagia Triada will be demolished.

PARTHENON SCULPTURES.—At the meeting of the *Hellenic Society* on Feb. 20, Mr. A. H. Smith read a paper "On Recent Additions to the Sculptures of the Parthenon." The objects described by the author were: (1) The torso of a boy, recently identified by Herr Schwerzek as belonging to the west pediment. The writer pointed out some of the difficulties connected with Prof. Furtwängler's theory that the group to which the torso belongs is Oreithyia with Zetes and Kalais. (2) A lamp in the British Museum, hitherto unpublished, with a new rendering of the contest of Athene and Poseidon. (3) The head of a Lapith from one of the metopes. This head was found in the recent Akropolis excavations. It cannot be actually fitted to any of the metopes. (4) The head of Iris from the central slab of the east frieze. (5) A new fragment of the group of old men on the north frieze, in agreement with Carrey's drawing. (6) The upper half of the armed warrior who accompanies the first chariot on the north side. In connexion with this group the writer discussed the comparative merits of Stuart and Carrey, and pointed out that the extant remains of Stuart's papers (*Brit. Mus. Add. MSS.* 22,152, 22,153) seemed to prove that the faults in Stuart's plates were largely due to the engravers. He called attention at the same time to a statement in the papers named that Stuart had given a volume of his drawings to Anthony Highmore, of Canterbury (1719-99), and suggested that if these papers could be traced they would probably be of value.—*Athenæum*, Feb. 25.

ROMAN BATH.—In a piece of ground (belonging to a Corinthian landowner named Rhendis) not far from the ancient Lechaum, excavations undertaken comparatively recently brought to light an old building

with a floor of mosaic and eighteen marble columns, as well as a relief with the head of Medusa. The Commissioner of the Government who has been sent to the spot believes the structure to be a Roman bath. The proprietor of the land, on the other hand, holds himself to have discovered an ancient temple. It is to be remarked that behind the tablet bearing the relief stands a Christian cross.—SP. LAMBROS, in *Athenæum*, June 23.

DR. LOLLING'S DEATH.—Greek archæology suffers an irreparable loss in the death, on February 23, of Dr. Lolling, for the last ten years director of the department of inscriptions in the National Museum of Athens, editor of Baedeker's "Greece," and, since 1879, librarian of the German Institute in Athens. He excelled most in epigraphy, and the Greek government fittingly recognized his astonishing achievements in this field by making him custodian and editor of the enormous body of inscriptions which the eager excavations of recent years have brought to the central museum at Athens. His catalogue of these inscriptions, a work involving enormous and ingenious labor, is well advanced in MS., though only the first part, on votive inscriptions, is published. Many American scholars remember gratefully the unselfish kindness of this modest, sad man, and regret that attainments and achievements such as his should have been haunted by a sense of defeat and failure.—*N. Y. Evening Post*, March 26.

DELPHI.—TRANSLATION OF THE HYMN TO APOLLON.—We give here the French adaptation of the Greek text, by Reinach and D'Eichthal, as it was sung in Paris:

"Dieu dont la lyre est d'or, ô fils du grand Zeus, sur le sommet de ces monts neigeux, toi qui répands sur tous les mortels d'immortels oracles, je dirai comment tu conquis le trépied prophétique gardé par le dragon, quand de tes traits tu mis en fuite le monstre affreux aux replis tortueux. . .

"O muses de l'Hélicon aux bois profonds, filles de Zeus retentissant, vierges aux bras radieux, venez par vos accents charmer le dieu Phébus, votre frère à la chevelure d'or, le dieu qui sur les flancs du Parnasse, parmi les belles Delphiennes, sur la roche à double cime, monte vers le cristal pur des eaux de Castalie, maître étincelant du mont à l'ancre prophétique.

"Venez à nous, filles d'Athènes, dont la grande cité, grâce à Pallas, la déesse au bras vainqueur, regut un sol ferme, inébranlable. Sur les autels brille la flamme qui des jeunes taureaux consume les chairs; vers le ciel monte l'encens d'Arabie; le murmure des flûtes sonne en chants modulés, et la cithare d'or, la cithare aux doux sons, répond aux voix qui chantent des hymnes.

"O pèlerins d'Attique, chantez tous le dieu vainqueur."

KALAURIA.—As already mentioned, the Swedish Government has asked permission of the Greek Government to excavate the Temple of Poseidon, on the island of Kalauria (the present Poros). This is the temple in which, according to the ancient account, Demosthenes took poison in 322, when pursued by the player Archias, the emissary of Antipater. Dr. Wide will superintend the work. The ruins, which lie on a height about half an hour's walk from the convent of the Mother of God, hardly rise above the surface of the ground, but are of considerable extent; and since they lie apart from modern dwellings and out of the way of traffic, on a little visited island, it is hoped that the excavations may lead to good results.—*Athenæum*, June 23.

KOPAÏS (LAKE).—In continuation of our notes on Kopaïs in the last issue, we will add that Dr. Alfred Philippson has an article on the topography, horography, geology, climate and history of Lake Kopaïs and its neighborhood in the *Zeitschrift der Gesellschaft für Erdkunde zu Berlin*, XXIX, 1, 1894. In the historic section of this careful study (*Die Geschichte des Sees und seines Gebietes. Die Versuche zu seiner Austrocknung*) the author gives an account of the successive attempts to limit and dry the lake, both in pre-historic times by the Minyans and in historic times.

The Minyan works consisted briefly of the following: Three canals were carried from W. to E. through the lake, one on the left (northern) shore, the second on the right (southern) shore, the third through the centre. The system was most skilfully planned, and led the waters to "Katavothren" or subterranean outlets on the West, which were at that time sufficient to carry away all the water. During the entire historic period Kopaïs was a periodical lake, at its highest in winter, and in summer either very low or entirely dry but for some swampy parts which were at the four corners. Many cities arose around it, but none rose to great power, and the fever-giving air was always a drawback.

It was in the time of Alexander the Great that Krates of Chalkis undertook to re-establish the efficiency of the Minyan works by clearing out the subterranean outlets. Philippson denies that there is any proof that Krates executed the great works of the historic period which have been attributed to him by most modern writers on the score of the passage in Strabo (ix. 2. 18). He says: "Es sind uns also keinerlei Nachrichten überliefert, aus welcher Zeit die gewaltigen Arbeiten stammen, die wir auf den Isthmen, welche die Kopaïs vom Meer trennen, bewundern. Diese Arbeiten bestehen: 1. aus einer Reihe von Schächten auf dem Joch von Larymna; 2. einem offenen Einschnitt auf dem Isthmos von Muriki zwischen Likeri und Paralimni; 3. einen offenen Einschnitt auf dem Isthmos von Anthedon.

Keine dieser Arbeiten ist vollendet worden. Während das Werk No. 1 die unmittelbare Ableitung der Kopais zum Meere bezweckte, bilden No. 2 bis 4 Glieder eines anderen Projektes, nämlich den Kopais-See zum Likeri-See abzuleiten, diesen bis zu einer gewissen Höhe ansteigen und dann zur Paralimni überfließen zu lassen, worauf diese dann in einer gewissen Höhe zum Meer überfließen sollte."

Thus while both the Minyans and Krates designed merely to dry the lake by carrying the water out through the natural subterranean outlets, these latest works were designed to use the water to increase the two lakes of Likeri and Paralimni and to carry it across the fertile Theban plain, thus using it for fertilizing purposes. It is quite probable that it is to one of the Roman emperors that the unfinished project is due.

The study of Philippson closes with an account of the lake in mediæval and modern times, and gives at the end a good list of the literature of the subject. It is accompanied by a good map.

ITALY.

PREHISTORIC AND CLASSIC ANTIQUITIES.

THE INHABITANTS OF THE TERREMARE AND THE GROTTA OF FRASASSI.—Prof. Brizio takes occasion of a study of three moon-shaped vase handles (*anse lunate*) of the prehistoric age to make some interesting remarks on the age and relations of different groups of the early Italic population.

The grotto of Frasassi is in the province of Ancona and contains remains showing it to have been inhabited in the neolithic age. In opposition to Pigorini, who believes the handle found in this grotto to be much later in date than those of the terremare and to belong to the iron age, Brizio shows that all the fictiles of this grotto have nothing in common with those of the necropoli of Picenum but present the closest analogies to those found in the stations called terremare. In doing this he brings forward newly discovered examples and makes a detailed comparison with objects from the terremare, showing that the people that dwelt in the grotto must be connected with the inhabitants of the terremare. He adds: "The fact is that we now know in Italy more than twenty-five stations—caves or huts (*fondi di capanne*)—which not only yield lunar-shaped handles, which occupy a minor place in the ceramics of the terremare, but also hundreds of fragments of vases of all qualities (fine and crude) and of all forms, such as the terremare also furnish in abundance. These caves and hut-bottoms are scattered over too varied and distant regions of the peninsula, from the Alps to the Terra d'Otranto, to make it possible that in such

early times, in these nurseries of civilization, a single people—that of the *terremare*—could possibly have extended from one end to the other of the peninsula the commerce of vases made by hand, for the greater part rather crude, and that no other people should have formed vases like them. . . . It appears more natural to suppose that several families of the same people, dwelling according to period and local conditions, in caves, in huts and in *terremare*, spread from one end to the other of the peninsula, each one forming its own vases with the paste, the baking, the forms, the ornaments, the handles, with all the elements, in fact, that were characteristics of the ceramics already made by them before they left the valley of the Po to spread over the rest of Italy.—*Not. di Scavi*, 1893, 325-7.

PELASGIC ITALY.—In the February number of the *Civiltà Cattolica*, Padre de Cara pleads for a national effort on the part of Italian archaeologists to solve the question of the origin of their country's civilization by the systematic exploration and excavation of Pelasgic Italy. He holds that this problem has remained so long unanswered because Italian excavations are rather conducted to enrich museums than directed to the solution of the historical problem, and also because of the confused and false conception which is expressed in calling "Italic" those peoples, cities, and cemeteries which are neither Etruscan, Roman, nor Greek, only because they are found in Italy. In a series of articles, extending over several years, the learned father has contended for the identity of the Hittites and Proto-Pelasgians on archaeological, etymological, and historical grounds; and he here repeats that, if "Italic" means Aryan, then it is among the peoples speaking Oscan, Umbrian, Latin, and other dialects of the Indo-European family that the parentage of Italian civilization must be sought; but that "Italy" meant in the first place the country of the Hittites (*Hethi*), and hence of the Pelasgians, and that name and civilization are alike Pelasgic. Those who hold it to have been Aryan have not only the testimony of Greek and Roman writers against them, but also the facts that there were Pelasgians in Italy whose stone constructions are standing to this day, and that the Etruscan language and culture had no Aryan affinities.

The writer further points out that the walls of Pelasgic cities, whether in Italy, Greece, or Asia Minor, all resemble each other, and that the origin of Greek civilization was also Pelasgian. In Greece, as in Italy, the Aryans followed centuries after the Hittite-Pelasgians, and Aryan Greece carried the arts of Pelasgic Greece to perfection. He believes that, of two migratory bands of Hittites, one invaded Greece and the other Italy, about the same time. He also draws attention to the coincidence that it is not very long since Greece, like

Italy at the present time, could date its civilization no further back than 700 or 800 B. C. Schliemann recovered centuries for Greece, but "Italy still remains imprisoned in the iron circle of the seventh century." To break it, she must follow Schliemann's plan; and as he had steady faith in the excavation of the Pelasgic cities and cemeteries of Greece, so will like faith and conduct on the part of Italian archaeologists let in light upon this once dark problem. Light will come from Pelasgic tombs in Italy as from the Pelasgic tombs of Mykenai, the ancient tomb, rightly explained and studied, being the compendium of a people's history; and a single Italian Pelasgic tomb, with its sepulchral furniture, will teach more of ancient prehistoric Italy than all the Roman and Etruscan museums put together.

In 1802, Torcia, librarian to the king of Naples, stated that there were monuments of seventy-five ruined or still inhabited Pelasgic cities in Italy, and many of their cemeteries. Since that time others have been noted. All these remains Padre de Cara would have studied with unity of purpose, combined strength, and efficient means. He proposes, that, in the first place, a congress should be called together of experts, not only in Etruscan, classic Greek, and Roman history and archaeology, but also in Egyptian and Oriental archaeology and ethnography, to discuss the means of solving the problem in question; to examine into the best method of exploring the cemeteries of these Pelasgic cities; and, above all, to draw up a topographical map of all the Pelasgic remains in Italy, be they small or great. This map should note the connexions between the cities, the plans of the city walls, forts, and gates, and pay special attention to the symbolism on the monuments; all this with a view to comparative study of the subject; viz., Asia Minor, Greece, and the islands of the Mediterranean. Tentative and inexpensive excavations would show where the Pelasgic cemeteries of Italy lie. The great expense would only begin with the systematic excavation of one or more of them, and this expense would be amply rewarded by the scientific results. Some Government money might well be diverted from the ordinary Roman and Etruscan excavations to this more interesting end; but, if the Italian Government is unable to assist in the work, Padre de Cara suggests that it should be accomplished by the foreign schools of Italian archaeology.

THE ITINERARIUM ANTONINI.—The text of the *Itinerarium Antonini* is studied by Otto Cuntz in the *Wiener Studien* (xv, 2) under the title *Beiträge zur Textkritik des Itinerarium Antonini* (cf. Kubitschek, *Zur Kritik des Itinerarium Antonini*, in *Wiener St.*, xiii, 1891, p. 177). It is a preliminary to a new text which he is preparing in conjunction with J. W. Kubitschek. Cuntz says: "Ich gebe erstens eine Uebersicht

über die Hauptergebnisse der Nachvergleichung des Escorialensis P und Parisinus D, welche ich im Winter 1891-2 besorgt habe, zweitens eine Untersuchung über die Correcturen, denen die Meilensummen in den Rentenüberschriften unterzogen worden sind, endlich Bemerkungen, über *sic* und die Angabe halber Meilen in P."

A "SABELLIC" OR Gnostic AMULET?—Mr. R. Seymour Conway writes: "Among several new Italic inscriptions which I have met with in the last week or two, and which I hope to publish together as soon as I get back, there is one which seems to deserve immediate notice. It is in the so-called 'Sabellic' alphabet, which appears in the archaic inscriptions of Picenum (not yet interpreted), Zvetaieff, 'Ital. Inferioris Insec. Dialecticæ,' 1-8; but I cannot recognize the language as one known to me (not even by dint of reading it backwards). The text is transliterated as follows:—

dubek.ube

t.t.uh.e.u

.n.ma.vi

"These letters, then, are written either in the bed of the setting of a large amethyst or on the under side of the stone, in a large gold ring seven-eighths of an inch in diameter, of rough workmanship. The amethyst is an oval half an inch long, and has cut on its upper (*i. e.*, outer) surface a lizard (or crocodile) walking with a small lizard (or crocodile) on its back. I can only conjecture, as an *ιδιότης* in archaeology, that it must be an amulet of some kind: the position of the letters on the under side of the stone shows they are not a seal, though the lizard may be. The ring was found by Signor Salv. Pascale of Curti, in the necropolis of the ancient Capua, and is at present in his collection."—*Athenæum*, April 28.

In the *Athenæum* of June 23, a communication is printed explaining this as a Gnostic Gem. "It seems to me hardly doubtful that the gem is one of those commonly termed Gnostic, some of which are religious *σύμβολα* or tokens, some mere amulets, while others serve in either capacity. These gems bear to one another a strong general likeness. Their designs are most frequently Egyptian in type, almost universally their legends are in Greek capitals (usually square), and they furnish a text (often designedly unintelligible) which in general seems to be Coptic, or otherwise of some Semitic language, sometimes, in either case, strangely mingled with Greek. Both in text and design the present gem exhibits characteristics similar to those I have sought to indicate.

"1. Design. It seems probable that the "small lizard (or crocodile) on a lizard's (or crocodile's) back" is, in fact, a frog, standing on a croco-

dile, though the lizard itself is a not uncommon device.¹ In my own rather large collection of Gnostic gems I find two somewhat similar in subject to the gem under view, and evidently connected in idea: (1) an amethyst bearing on it a winged frog, seated on a lotus, which rises from a crocodile's back; and (2) a crystal, engraved with a dragon carrying on its back a winged frog; the legend, in both cases, IAPBAΘA ΓΡΑΜΝΗΦ ΙΒΑΩΧ ΝΗΜΕΩ. The letters are the usual square Greek capitals, and, as is most usual, read directly from the stone.

"The symbolism in all its fulness forms a subject too large for present discussion, but I may briefly state that the frog is held to be a type of the resurrection to a higher life beyond the tomb, and that the crocodile and lotus are special attributes of the sun-god Horus, to whom most of the talismanic gems appear to have been consecrated. The dragon is the evil ruler of the world, the devourer of the soul not imbued with knowledge (*Γνωσις*), or, more generally, the great principle of evil. The resurrection and deliverance of the enlightened soul, therefore, and its conveyance to the upper regions through divine power, would seem to constitute the subject of such gems as these. Sometimes, no doubt, like others of the Gnostic class, their symbolism and language were designedly ambiguous, so that at critical times the semi-Christian owner might assign the token of his secret brotherhood to Horus, Serapis, or Mithras, instead of to Christ.

"2. Inscription.—Contrary to the usual practice, this (according to the diagram) is cut reversed on the amethyst, as if meant for a seal. Reading it as it would show in an impression, and dividing the words, the text stands thus:—

PV BEKE VBE
T□ T□V ≡ E□V
□NOMA □□I

"The first line appears to be in Coptic, a language with which, unfortunately, I have but small acquaintance. Consulting Tattam's 'Lexicon,' we find that BEKE signifies *μισθός*, *merces*, reward. This word occurs as the sole legend on one of my own gems (on plasma), where it accompanies the presentation to Isis of a kneeling worshipper by Anubis, the guide of souls through the perilous paths of Amenti. The idea of reward is also embodied in the common Gnostic legend BAINXωωω (*Βαι, præmium certaminis*), 'Reward—secret—honour,' inscribed on gems that probably were the tokens of a victorious endurance of initiation tests and trials. We may, therefore, not unreasonably

¹ The lizard was a type of the *λόγος* and of the sun; on gems it was also a talisman protective of the eyes.

separate the letters that form $\beta\epsilon\kappa\epsilon$, and assign to that word the sense of reward.

"The Greek TO TOV ΘΕΟΥ ONOMA needs no explanation. To illustrate the use of $\theta\omicron\nu\omicron\mu\alpha$, I may cite the legend on another of my gems (an eagle grasping a serpent—protective against storms and lightning): EYONOMA IONA YXEPPEI BALBEΘIPPO—which also illustrates the blending of languages on these talismans.

"Mr. King ('The Gnostics,' p. 206) cites two Gnostic legends exemplifying the use of the word $\theta\omicron\nu\omicron\mu\alpha$ —META TO ONOMA TOY MON ΘΕΟΥ, and META TO ONOMA TOY CAΡΑΙIC (Serapis).

"If, apart from talismanic uses, a conjecture might be hazarded regarding the spiritual meaning of the legend on the present gem, I should suggest that it either expressed its owner's desire to be *rewarded* by salvation through the name of God the Redeemer—'the price of redemption' (or, alternatively, of Osiris), or his boast that he sought no other *reward* than to bear the name of that divine being—recalling the Mithraic initiatory formula, when the neophyte cast to earth a crown and a sword, exclaiming, 'Mithras is my only crown.' The design on the obverse, as I have sought to show, would harmonize with these readings of the legend, for it figures resurrection to life through the aid of an all-potent god."—SOUTHERS, *Athenæum*, June 23.

LATIN HISTORICAL INSCRIPTIONS, ILLUSTRATING THE HISTORY OF THE EARLY EMPIRE.—This work by Mr. Rushforth is of unusual interest and value, and we know of nothing quite like it in character and scope, for Mr. Hicks's excellent 'Manual of Greek Historical Inscriptions,' to which Mr. Rushforth refers in his preface, is more epigraphical in its character, while this little collection of inscriptions is more elementary on the epigraphic side, and more definite and limited on the historical side. It contains a hundred inscriptions of the years between 29 B. C. and 79 A. D., selected as touching on important points in the constitutional history of the empire from Augustus to Vespasian; and various other inscriptions are incidentally referred to and quoted in part. The real importance of the work, however, lies on the historical side. We know no other book which can be compared with it in value as an introduction to Roman imperial history, in the sense in which it is understood and studied in modern times. The book contains no history of persons or campaigns; it rarely alludes to, and never does more than allude to, the "great events of history" under the early emperors. It quotes the inscription of Ticinum enumerating the family of Augustus, but treats it only as a first step in the development of a divine household or imperial family. But it would be difficult to mention any factor in the growth of municipal or political institutions, in the organization of Rome, Italy, and the provinces,

in the development of communication between the parts of the empire, in the formation of the great standing armies and camps, in the creation of a state church as a political device to bind the empire into a unity, which is not here treated in a suggestive and luminous, though very brief way. We observe, indeed, no reference to Seneca, the only private citizen of the early empire who exercised a strong and permanent influence on the imperial policy; but probably many may disagree with our belief in the importance and weight of Seneca's influence on the government of his time; and Mr. Rushforth might on various grounds object to the inscription which we should like to include. We should also like to see some reference to the development of Christianity as a political influence.

The book is, of course, one for the student, and not for the *dilettante* who wishes to get in an attractive and simple form the views of a modern scholar about Roman history. It takes the student direct to the original authorities, leads him to think over them and weigh them for himself. Further, it is not for the mere beginner in history; it presupposes a knowledge of the ordinary political, dynastic, and personal history of the time. To bring out the real interest that lies latent underneath its facts, much additional knowledge is required. It is an invaluable collection of well-selected and well-ordered facts for the use of the student who is ready to give the time and work necessary for a real understanding of imperial history. Especially it seems to the present reviewer to fill exactly the place which he has found empty: it is the ideal book to place in the hands of students while they are attending a course of lectures about the period with which it deals, and listening to a more literary exposition of the topics for which it supplies the most useful materials.—*Athenæum*, July 22.

PUBLIC ROMAN FUNERALS.—This subject is treated for the first time exhaustively in a treatise by Frid. Vollmer, *De funere publico Romanorum*. A *funus publicum* was an official funeral, not one merely to which the public was invited, as Guhl and Koner (*Life of the Greeks and Romans*, p. 590) thought. It was at the public expense, of a costly nature, and stopped public business. The origin is in the *funus collaticium*, paid for by voluntary contributions, or by burial societies, or from the military exchequer. When the state paid the expenses through the *quæstor*, acting under the instructions of the *consul*, who was obeying a *senatus consultum* made for the purpose, then the *funus* became strictly *publicum*. Toward the end of the Republic the state not only paid the expenses, but undertook the whole management of the funeral, including the eulogy by a magistrate and often a place of burial, but never the erection of the monument itself—except in case of the emperors—nor any cult of *manes*.

They were often accompanied by games, *ludi*. The order of the ceremonies was as follows: *expositio corporis mortui (vel imaginis) in foro, contio totius populi praesentibus ordinibus senatorio et equestri virorum et mulierum, pompa militum, imaginum comitatio amplificata, laudatio a magistratu habita, portatio mortui per honoratos viros, agmen magistratum et pontificum, ludi militares circa rogam, incensio rogi per magistratum*. There was a *iustitium* and mourning by the women for a year. Women were not so honored until the time of Augustus.—*Classical Review*, June, 1894.

S. ANGELO IN VADO.—ARCHAIC NECROPOLIS.—In well-tombs in this neighborhood there have been found at various times, without any regular excavation, objects that prove the existence here of a very ancient necropolis, regarding which it is premature to report anything definite. Thus far there have been but few fictile vases or objects in copper: ostensibly nothing but bronzes have been found.

It is noted that many casual discoveries of Roman and pre-Roman antiquities and sculptures have been made in this vicinity at various times during the last fifty years.—*Not. d. Scavi*, 1893, pp. 320-24.

AREZZO (NEAR).—AN ANCIENT ROAD AND ARETINE POTTERS.—Prof. Gamurrini has made for many years so careful a study of that most interesting of Roman potteries—Aretine ware—as to have become the one authority on the subject. He expects to publish a thorough treatise on this subject in the *Monumenti Antichi* of the Academy of the Lincei, and in the meantime he has often promised to write a brief but comprehensive account for the *JOURNAL*—which we do not yet despair of obtaining. He has a short note in the *Scavi* (1894, p. 48) on a Roman road near Arezzo, which gives so interesting a glimpse of the names, factories and relations of some of the Roman potters that I shall give here almost a translation of it.

"In speaking of the ancient manufacture of pottery of Publius Tullius, established at the bridge called Ponte a Buriano, on the Arno (*Notizie*, 1893, p. 138), I noted that from this point there branched off two roads on the right of the Arno, one following its course toward Florence, the other rising toward the Casentino. . . The ancient road from Arezzo reached Ponte a Buriano, passing by Galagnano. On the opposite bank, near the bridge, Publius Tullius established the manufacture of red vases in relief in about the time of Sulla. Then came Publius Cornelius and took possession of it, employing the same workmen. Soon, however, the manufactory and workmen were transferred to Cincelli, less than a kilometre away on the road along the Arno. This road had its beginning at the bridge itself, and at the bifurcation was an aediculum, built apparently with only two Corinthian columns in front, as is shown by a remaining capital. Its position leads us to believe that, as usual, it was dedicated to the Lares compitales.

"Hence it proceeds, skirting the hill of Cincelli, then called *Centumcellae*, as we know from mediæval documents. On its slope and on the road, opposite the Arno, worked Publius Cornelius, who was certainly a *libertus* of Sulla, who came with the Cornelian colony to Arezzo. But it so happens that before him or at the same time there was here another potter's establishment held by Caius Cispus. I incline to the belief that for some time they were partners in this business, at least on this site, because only at Cincelli do we find on vases the name of Cispus combined with that of Publius Cornelius. That a close connection and common interest existed between these two families is shown by the letter of Cicero to the proconsul Quintus Valerius, where he recommends to him a certain Publius Cornelius: *P. Cornelius, qui tibi has litteras debet, est mihi a P. Cuspio commentatus* (*Famil. XIII. 6*). This passage may also show the period at which their factory flourished.

"After having adduced many arguments to prove that the Aretine vases were made and distributed in Rome and through the Roman world from the time of Sulla to that of Augustus, we can now bring forward another manifest proof of this fact. The engineer Vincenzo Funghini, in exploring anew the pottery factory of Cincelli, has found many remains of that of P. Cornelius, and among them a small decorated cup signed *RODO*, who appears to have been one of the last workmen of Publius Cornelius. On it is four times repeated the impress of a medal with the head of the young Augustus, with the inscription *AVGVSTVS*, the medal being placed between two leaping dolphins. This refers to the assumption of the title of Augustus two years after the naval victory of Actium in 723 U. C., a victory symbolized by the two dolphins. This date is extremely important for the history of the Aretine vases, for it fixes the period of their decadence, because before the disappearance of the Cornelian manufacture, the Rasinian, Memmian, Perennian and Tellian factories, which produced the most delicate and exquisite works in relief on their table vases, had already ceased to exist."

Above Cincelli the ancient road bifurcated, one branch following the Arno toward the Abbey of Capolona=*caput leonis*: the other proceeds to Pieve S. Giovanni (a *fundus* of the Sulpicii), passing by *Casa rossa*, where there appears to have been another manufactory of vases not yet explored. From the *pieve* the main road leads to Apia, which preserves its ancient name, of Italic or perhaps Pelasgic origin, for Apia in Arcadia was the Pelasgic centre. Below Apia are some remains, and several tombs have been found, but it is not known to what period they belong. Prof. Gamurrini found a Roman uncial as of the second century B. C. From Apia the road turned to the right

through Busseto=Buxetum, a *fundus* of the Valerii, where two beautiful cinerary urns of this family, belonging to the first century of the empire, were found in 1654. The road proceeds through Casa Vecchia, Palazzo (*Palatium*) and Sorboli. At this latter place was lately found the bone handle of a knife of remarkable interest. At the end is carved a draped female bust with a headdress high over the front, like that of the Empress Sabina—a portrait of her time, and perhaps even representing the Empress herself, as it was then often the custom to repeat on objects in use the portraits of the rulers. Hence the road seems to pass under Vezza (on its left), Bibbiano (= *Vibia* ?), Ponino, an Etruscan site, and Belfiore, below which tombs of the second century of the empire were found. The last two places are in the *prædium Voconianum*, now the *pieve* of Vogognano. Near this are the remains of an ancient bridge over the Arno. Leaving the bridge on the right the road proceeds to Talliano.

"The distance that we have traversed between the ponte a Buriano (where was the Tellian factory) and Telliano is about ten kilometres, and all along we have met property belonging to Roman families. First the Aburia, then the Cornelia, Sulpicia, Valeria, Bebia, Tilia, Voconia, Laurentia, and Tallia. Did these properties, almost all fertile and delightful, come to them through the Sullan or the triumviral colonization? It is difficult to say. What is perfectly clear is that through the Aretine fields the edict was proclaimed, *veteres migrati coloni*, and Italy, after those fatal civil wars, belonged no longer to the Italians, but to the Romans alone."

BOLOGNA (NEAR).—NEW ITALIC TOMBS DISCOVERED IN THE PROVINCE.—The *Scavi* report (1893, pp. 315-19) recent discoveries of tombs in the province of Bologna.

I. *Prunaro*.—A number of tombs of the Villanova type, badly explored by ignorant peasants, so that the greater part of the contents were broken. They belong now to Major Olivetti.

II. *S. Giovanni in Persiceto*.—On two occasions there were found at a short distance from this town a number of objects of the Villanova type, although no tombs were found, either intact or violated. One of the groups of objects belonged certainly to a feminine burial.

III. *Toscanello Imolese*.—The objects discovered here were found in black earth, the tomb or tombs having disappeared. The objects of especial interest are: (1) a so-called bronze *tintinnabulum* with two spherical ends, all in open-work, with fifteen triangular, rectangular or lozenge-shaped holes in which red amber is inserted; (2) a bronze mace of the same open-work technique.

IV. *Monte Castellaccio Imolese*.—V. *San Lazzaro*.—These two places are mentioned in connection with objects found some time since. At

San Lazzaro the objects found prove the existence of a station of the stone age.

BOLIGNA.—EXCAVATIONS DURING 1893.—At Bologna some excavations have been in progress since the month of April on a plot of ground situated outside Porta St. Isaia, about 600 metres to the left of the road, in which part of a necropolis has been brought to light, and about seventy tombs had already been explored up to June. Most of the burials were after cremation, and a few only by inhumation of the Villanova type. Numerous grave goods were obtained. Amongst them we may enumerate the *dolia* and the ossuaries which characterize that period, together with many bronzes, consisting of *situlae*, *ciste*, *fibulae*, knives, razors, horse-bits, &c. A novel discovery, however, was that of a small bronze chariot, the only object of the kind in the museum of Bologna. In digging in the direction of the Certosa, the workmen came across a trench, upon the character of which two opinions were immediately formed, some thinking that it was the boundary ditch of the necropolis of the Villanova type, at a certain distance from which ought to be found the Etruscan necropolis; others, on the contrary, thinking that it was a mere channel for waste water. Further excavations may throw more light upon the subject.—*Athen.*, Aug. 5, 1893.

CAORSO (NEAR).—TERRAMARA ROVERE.—About 14 kil. east of Piacenza, in the commune of Caorso, and traversed by the road called *della Rovere*, is a terramara which is the westernmost of those in the province of Emilia. It should be called the terramara of *Rovere di Caorso*.

It was discovered in 1865 during the construction of the present road, but was not scientifically known until 1877, by means of Count B. Pallastrelli. Scientific excavations here were entrusted to Sig. L. Scotti, who made some essays in 1891 and serious excavations in 1892. The results are published in the January number of the *Scavi*. The methods followed were those employed recently by Prof. Pigorini in his epoch-making excavations at the terramara of Castellazzo di Fontanellato in the province of Parma.

Without entering into the details of the excavations, it may be said that they were completely successful and showed this prehistoric station to be in the form of a trapeze, 150 m. long on the east, 170 on the west, 135 on the south, and 130 on the north. It has a surface of 20,640 square metres, but the part reserved for habitation comprised only 12,870 sq. m., the rest being given up: to the encircling ditch; to the dyke, which descends toward it on a gradual slope, while toward the interior it presents a vertical face; to the retaining wall (if we may use the term) or *contrafforte* which supports it. These three elements of defense have the same dimensions throughout: the ditch is dug 1.50 m. below the original level of the surrounding country, and is 10 m.

wide; the dyke has a base of 5 m.; and the *contrafforte* is 1.50 m. wide.

The plan of this *terramara* confirms the fact demonstrated by Prof. Pigorini in his monograph on the Castellazzo *terramara*, that the *terremare* present the essential characteristics of the Italic cities—quadrangularity and orientation.—*Not. d. Scavi*, 1894, pp. 3-9.

CAGLIARI (SARDINIA).—VOTIVE TERRACOTTAS.—The lagoon of Santa Gilla near Cagliari has yielded further votive terracottas. There were 327 pieces brought up during the last campaign. Of these there were 36 entire and 8 fragmentary masks; many fragments of hands and feet; heads of panthers, dogs, dragons; large and small amphore, vases, dishes, lamps. It is supposed that these are part of the stock in trade of ancient dealers, kept on a bridge defended by palisades. It is also concluded that there was here a manufactory of terracottas. The age is difficult to determine, for while the fictiles are of the Phœnicic-Punic type, those representing parts of the human body present Græco-Roman art.—*Not. d. Scavi*, 1893, pp. 255-58.

CAPANNORI (ETRURIA).—AN ETRUSCAN TOMB.—Further work for the drying up of the swamps on the site of the lake of Bientina, between the Serchio and the Arno, has led to an important archaeological discovery which confirms Ghirardini's contention that Pisa belonged to the Etruscans, as against the general opinion that Pisa and its neighborhood had never yielded monuments of Etruscan character.

There had been an attempt made to dry up this alluvial swamp in 1853 and the following years by Grand Duke Leopold II, but with only very partial success. Since then partial works have been carried on by the civil engineers of the province of Pisa. In the course of some work during 1892 on the rivulet called Ralletta, connected with the upper part of the main emissary, the workmen came across a stone which covered a large terracotta vase containing a smaller vase, with burnt bones and several gold objects. It was one of the tombs for combustion called *tombe a ziro*, met with already in the earliest necropoli of the Villanova type, but found also in specifically Etruscan necropoli of later date. The vase is a red-figured amphora, and has on one side Theseus killing the Minotaur, represented in a highly interesting and original manner, though the figures suffered from barbarous treatment at the hand of the ignorant discoverers. The other scene is probably from the life of Herakles.

The jewelry is of considerable interest. There are: a pair of earrings, many pieces of a necklace, eleven fibulæ and a pin. All are made of very thin gold leaf, decorated in relief with stamped designs: this fact is all the more evident that the eleven fibulæ are all of exactly the same design. The earrings are of the kind called a *baule*, that is, the

body is formed of a cylinder open at the top, closed on the front by a circular plaque or disk surmounted by a fancifully-shaped top-piece filled with a lotus derivative such as surmounts some proto-Ionic capitals. Finally one side of the cylinder is surmounted by a round-topped plaque with a gorgon-mask. The decoration is extremely rich, delicate and harmonious, (Fig. 1) and the type is like that used by Helbig (*Hom. Ep.*² p. 273) to illustrate the form and decoration of the

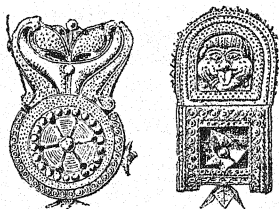


FIG. 1.—EARRING FROM TOMB, CAPANNORI.

Homeric earring. Such have been found in a tomb of the VII cent. at Vulci, of the VI at Cervetri and Corneto, of the V at Orvieto, Bisenzio and Bologna. The main difference is that in these specimens at Bientina only the stamped and stippled decoration is used, no filigree and grain-work such as is found in the other examples of this type. There are features in the form and decoration, also, that make these unique—such as the roses in a square ground and the gorgon-plaque. The date is the close of the VI or the beginning of the V century.

Among the gold objects composing the necklace there are several of remarkable interest. First of all are two figurines of harpies, with the upper part of a woman's body and the lower of a bird's. The face is decidedly archaic: the hair descends in two long braids on the breast. Two wings spring from behind the shoulders and two appear below, on either side of the bird's tail. Compare the harpies of the famous Cortona lamp (*Mon. Inst.* III, pl. 41, 42), of the Praenestine Cista in the Louvre (*ibid.* VI-VII, pl. 64, 3) and of a necklace in the Louvre (Martha, *L'Art Etr.* fig. 384). Next in interest come two female busts with wide-extended arms out of which grow wings—similar to the well-known bronzes found at Olympia, Lake Van, Delphoi, etc. There are also three birds of the same type. Other ornaments are: groups of flowers, a wreath with palm, two pine-cones, two acorns, etc. The fibulae are remarkable for the trapezoidal shape of the base.

In fine, all this jewelry belongs to the best period of Etruscan work and is of most exquisite workmanship, and reminiscent in part of Oriental motives.

The greatest importance of the discovery lies in the fact that it proves the existence of an Etruscan civilization in the province of Pisa. Certainly this was to have been expected, for this region was surrounded, at a short distance, by famous centres of Etruscan culture—Volterra on the south, Fiesole on the east, and Luni on the north. It is to be hoped that a systematic excavation of the site will be undertaken, for this tomb, with its rich contents, was certainly not a solitary one.—*Not. d. Scavi*, 1893, pp. 403–18.

CARCERI (NEAR ESTE).—PRE-ROMAN ANTIQUITIES.—Carceri is in the Euganean plain, some $8\frac{1}{2}$ kil. from Este. It was known by some discoveries of Roman antiquities, but only recently have discoveries come to prove that in pre-Roman times it was a centre—perhaps an important centre—of a Euganean population.

The discoveries consist of six tombs. In one of the ossuaries were found some bronzes which, from their special shape and decoration, are of considerable interest. Such are, in the first place, fragments of two *cinture di pancia* with geometric decoration in raised points and balls, while the second one had a bronze clasp of triangular form, interesting and unique from its figured decoration, representing a sacrifice to a harpy-like divinity. Many other objects are of rare form and character and supplement the rich collections of this period in Este.—*Not. d. Scavi*, pp. 396–403.

CATANIA (SICILY).—AN EARLY CHRISTIAN HYPOGEUM.—The discovery of a hypogeum in the new quarter of the city has shed light upon the cemeterial forms of the earliest Byzantine period, and also on the topography of Catania.

The appearance and form of this burial-place was as follows: Between two heavy walls 1.70 m. thick at the base, and gradually

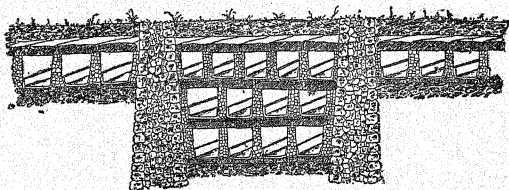


FIG. 2.—EARLY CHRISTIAN HYPOGEUM IN CATANIA.

decreasing in thickness up to 1.20 m., there appeared three superposed stories of tombs, each story containing five tombs, as in the accompanying sketch (Fig. 2). Beyond the walls, on each side, the tombs continued on a single story even beyond the point where the engineer

stopped his investigations, which concerned the erection of a new building. The tombs are simply quadrangular cells built up of sufficient size to contain one or more bodies. Their height varies from 0.80 to 0.90 m., their medium width is 0.80 m., and their length that of the usual body. The vertical divisions are 0.25 m. thick; the horizontal ones 0.30 to 0.35 m. thick. The walls are of an *opus incertum* made up of all kinds of material: the walls of the loculi carefully coated with cement, while their bottom is covered with thin slabs of marble, some of them being inscribed. The upper covering of the loculi was usually one unfinished slab—sometimes two slabs—of lava, above which was a bed of cement and marble chips. One peculiarity found in two of the tombs appears to be unique, and not to occur either in pagan or Christian tombs. In one of them a large part of the body—the trunk—rested on a large tile 0.70 × 0.60 m., riddled with circular holes two cent. in diameter, and supported on nine short feet arranged in groups of three. In a second tomb the perforated tiles extended under the entire body, but instead of having feet it was sustained by necks of small amphorae cemented to it.

The tombs were extremely poor and appear to have contained nothing. In one of them was found a semi-aureus of Marcian (450–57). Several fragments of Roman inscriptions of the imperial period were used in the construction of the tombs. This was evidently a cemetery *sub divo*, surrounded by buildings, which was used from the iv century onward. One of the inscriptions speaks of the οἶκος αἰώνιος ἐν Χριστῷ, which is the cemetery itself. The two heavy walls were probably connected with a chapel or *memoria* or *cella cæmeterialis*.

Not far from here, at S. Domenico, a series of loculi of exactly this description was found some time ago, and discoveries of tombs of different periods have been made in this same region. Therefore it may be regarded as certain that the line extending between Piazza Bellini and Cibali was the sepulchral region of Catania, from Hellenistic times down to the early Middle Ages.—*Not. d. Scavi*, 1893, p. 385.

CORNETO = TARQUINII.—LAST EXCAVATIONS OF 1893.—The discoveries made in the necropolis of Tarquinii from March 6 to 31, 1893, just before the close of the season's excavations, are described by Prof. Helbig in the *Scavi* (1893, pp. 514–16). A ruined chamber-tomb was found on March 8 between the new Camposanto and the path across the Monterozzi. The objects were covered with such heavy calcareous deposits as to make it impossible to describe the most of them. There were three proto-Corinthian aryballoi, a Corinthian aryballos, a kantharos of black bucchero, and a small cup of brown clay, worked by hand, similar to those in well- and trench-tombs. A stamp in light green paste, resembling a scarab, had on its rounded surface, instead

of a beetle, an extremely archaic beardless human face, with heavy hair parted in the middle, and upturned corners to the mouth. On the flat part are two men running, drawn almost as if they were kneeling, as is usual in archaic art. A second ruined chamber yielded but a pin and an Attic cup, a tomb *a buca* contained but an amphora. Then came another ruined chamber-tomb, the contents of which belong to the third century B. C., the pottery being mainly Campanian or Etrusco-Campanian. There followed four chamber-tombs, all fallen in. The first cannot be earlier than the third century, but the contents of the second belong to the last decades of the VI century. They are: a small Attic cup with delicately executed black figures, a pair of gold earrings of the type *a baule*, and a scarab cut in a carnelian. On the outside of the cup is represented a centaur pursued by a youth. The third tomb seems to be contemporary with the one just mentioned. Its two benches remained and in each a skeleton. The arrangement of the two bodies constitutes an exception to a constant rule in the necropolis of Tarquinii. Heretofore it has been found that the bodies were placed with the head next to the front wall and the feet next to the entrance. Here the reverse is the case, and the skulls were found near the door. Here were found an aryballos covered with greenish enamel (Egyptian porcelain) and two gold disks. The fourth tomb, placed somewhat nearer the modern Camposanto, yielded a considerable number of vases which may prove interesting, but they are still covered with a thick calcareous crust. While there are some pieces of *bucchero*, the majority are of Greek ware, especially Corinthian.

DISCOVERIES DURING 1894.—Prof. Helbig reports as follows for the first two months of 1894: "The excavations of this year were commenced on Jan. 29 at the Monterozzi, near the Arcatelle, and the Tomb of the Kitharoidos. Visiting them on Feb. 10 and 11, I found that only two tombs had been discovered, the contents of which were interesting for various reasons. The first was a chamber-tomb situated near the painted tomb on the Querciola property, now designated as No. 4. Its vault had fallen in and there were other signs that the chamber had been visited of old; but this visit must have been very superficial, as under the ruins several objects of precious materials were found." Among such objects the most important was a scarab cut in an oriental onyx, with a diameter of .019 m. The cutting was done with great delicacy in an advanced archaic style. It represents Peleus pouring oil from a lekythos into his left hand, while at his feet sits on the ground a nude youth, perhaps the young Achilles, perhaps merely a slave of Peleus. The latter—identified by the inscription ΕΝΕΙ behind his legs—stands to the left, bending slightly forward: he is

nude and beardless. The youth turns his face upward toward Peleus and holds up to him, hanging from his left hand, an aryballos and a strigil. There were also found eight gold objects: a plain ring; an earring decorated with parallel lines in relief; two buttons with a rosette in the centre, now empty but originally filled with enamel; two buttons, decorated, the one with gold grains, the other with vine-like leaves on a ground of gold grains; finally a fastener in the shape of a shell (pecten), with two suspending rings. Of the two bronzes found, a vase-handle is decorated with a mask of Seilenos of rather advanced archaic style.

Five of the vases found in this chamber are of Attic, one is of local, manufacture. Among the Attic vases one is of especial interest. It is an olla with two oblique handles (*cf.* Furtwängler, *Berliner Vasensam.*, t. VI, No. 214), which has on both sides the same composition in black figures, executed with great carelessness. "It seems to me not impossible that this is a case similar to those lately noted by Klein (*Jahrb. Arch. Inst.*, VII, 1892, pp. 142-44); that is, that the vase-painter, having already commenced to execute the composition, suddenly changed it to one of different character. The painting repeated on both sides of the vase, as it at present stands, is composed of the following motives: In the centre four horses galloping to the right, and partly hidden behind the last one is the figure of a man, behind whom is an object like a sword. In front of the horses is a woman running with her head turned, dressed like a Scythian woman, but without weapons. A similar figure is behind the horses. The scene is framed by two seated sphinxes facing the handles. The Scythian females are intended certainly to be Amazons, but it is peculiar that they are weaponless. There is no such subject as this in any of the monuments relating to the Amazon myth. It is natural to suppose that the painter had planned the scene to represent a different subject. This is confirmed by two facts: a horse's tail appears to proceed from the thigh of one of the Amazons; the other Amazon has far too long a face, giving the impression that the painter covered up an original bearded face with the typical feminine complexion. In fine, the subject originally planned seems to have been the popular one of Dionysos on his chariot preceded and followed by a Seilenos."

On Feb. 29 a well-tomb was opened, in which the funerary objects were contained in a large *dolium* covered with a stone slab, by which the earth had filtered in, damaging the contents. In it was a cinerary vase of gold-colored metal plate placed in the centre. This vase (25 cent. high in its present state) corresponds in form and in relief-decoration to one found in another well-tomb of Tarquinii, also provided with a *dolium*. This latter example, however, which is published in

Monum. dell' Inst., vol. XI, pl. LX. 5, did not serve as a cinerary urn. It has two handles that turn in two clasps nailed to the band of metal forming the orifice. Such handles must have existed in the vase recently found, as the holes are there. They must have been removed to fit on a cover suitable to its transformation into a cinerary urn. This cover is decorated in the centre with a sort of umbilicus, from which straight lines radiate to a zone of small circles which surround the periphery. All the decorations are in relief. Prof. Helbig adds in a note: "In regard to these vases of metal plate of the same color as our brass compare vol. IV of the *Monumenti Antichi editi dalla R. Accademia dei Lincei*, recently published (pp. 208-26). Here it is that Prof. Barnabei, illustrating the vases discovered in the earliest tombs of the necropoli of Narce and Falerii, has inserted a memoir which quite revolutionizes our judgment in regard to ancient technique."

Grouped around the cinerary urn were: two vases of gold-colored metal plate; two local vases of Italian bucchero, worked by hand; and a turned vase. This last vase, which seems to be imported because turned, has a geometric decoration of horizontal zones, vertical bands and triangles in red on a yellow ground, and corresponds in form and technique, though not quite in decoration, to one published in *Mon. dell' Inst.*, XI, pl. LIX. 18. Many small objects lay at the bottom of the *dolium*: silver cylinders; blue glass beads; fibulæ *a sanguisuga*; fragments of harness, etc. Several of the fibulæ are decorated with one or more rings. On one is hung a stone arrowhead. This latter is of considerable interest, for it shows that even at the early date of the period of the well-tombs the stone arms were used as amulets, and that thus the superstition current during the classic period, and which has lasted in some places even to the present time, has so early an origin. This tomb, from the absence of rasors and arms, appears to have been that of a woman.

On March 12 Prof. Helbig again visited the excavations and reports as follows: On Feb. 13, at about 40 m. N. of the *Tiro a segno* was found a chamber-tomb 2 m. long, 1.90 m. wide, with vault fallen in. It had been anciently rifled and contained only unimportant fragments of Campanian or Italic vases. About 50 m. to the north a trench-tomb covered with slabs, with contents of some interest. These were: a disk of gold plate used as a pendent to a necklace with a relief decoration of circles surrounding an umbilicus (*cf. Not.*, 1882, pl. XIII. 1; p. 146); two bronze fibulæ, similar to the type *a sanguisuga*; a figure of *Bes* in greenish enamel, with a hole for suspension; a strange guthus of reddish brown clay with the head of a bull serving as spout, etc.

On Feb. 23, further northward a chamber-tomb with waggon roof was found, 1.95 m. long, 2.20 m. wide and 1.80 m. in greatest height.

Entrance to W. two benches, each with two skeletons, and in both cases the bones of the body first buried were removed toward the wall to make room for the second. The chamber contained some Greek pottery and six vases of black bucchero. Another ruined and despoiled tomb was found in this neighborhood Feb. 26. Soon after the excavations were closed.—*Not. d. Scavi*, 1894, pp. 52-8.

CORTONA.—IT RETAINED PELASGIC FORMS.—Comm. Gamurrini, in commenting on an Etruscan cinerary urn with the name *Karse*, remarks: "The name *Karse*=Carsus seems to me important, being surely Italic: from it are derived the typical names of Carseoli or Carsoli in Latin, and of Carsule in Umbrian, by the addition of the suffix *li*, in Latin *lum*, meaning place or dwelling. This Italic name has here become an Etruscan person, no small indication that the Italic language is the basis and substratum of the Etruscan, as the Latin is of ours." Dionysios of Halikarnassos says that in his time Cortona still retained the primitive Pelasgic, that is Italic, tongue, which was equivalent to saying that its dialect preserved archaic words and expressions. The same fact is noted by Pliny the Younger in describing his villa in the territory of Citta di Castello (*Tiferum Tiberinum*) behind the hills of Cortona. The palæography of the inscription is also archaic, so that it may be inferred that in all respects this region was late in becoming Etruscanized.—*Not. d. Scavi*, 1894, p. 51.

GAETA.—STATUE OF CYBELE.—On the road between Formia and Gaeta was found a statue of Cybele, considerably over life-size, executed in several pieces—the head, arms and front part of feet being attached. Cybele is seated on a throne with a turreted crown on her head: she is rather youthful, though matronly in appearance. Near it were found two small lions, making it certain that the statue represented Cybele. It probably stood in a temple.—*Not. d. Scavi*, 1893, p. 361.

GREAT ST. BERNARD.—The exploration of the *Plan de Jupiter*, at the Great St. Bernard, which was commenced in 1890 and continued every year, was brought to a close in the fourth campaign during August, 1893. It had been the intention to leave uncovered the entire area excavated, but the ruinous condition of the remains found made it necessary to cover them in order to ensure their preservation.

There remained to be excavated during this last campaign the central and southwest portions of the plateau. Here were found remains of walls of the same style of construction and, in general, the same thickness as those of the structure uncovered during the preceding year. The remains are too fragmentary and small to allow of a reconstruction of a complete plan of the building, whose axis varies somewhat from that of the temple and the other building: it has so much in common with the latter structure that it may be regarded as another house of the mansion or hospice of the Pennine mount.

The traveller of Roman times who, having ascended by the Italian side of the mountain, and leaving the road, reaches the plateau, finds on either side two buildings separated from one another by far more than the width of the road by which he has travelled. The building on his left (as can be deduced from the great quantity of tiles and charcoal found without its western wall) must have been covered by a very projecting gable roof. Although it is probable that the same was the case for the building on the right, its ruins had been so much more thoroughly searched by previous excavators that it was not possible to be certain. The entrance to the second building appears to have been on the west side and not on the east side, which was opposite the west wall of the temple, from which it was distant about seven metres. No structure stood in front of the temple, which had an unobstructed view, and directly in front of which rose the peak of *Chenalettas*, while at its feet is the swamp in which so many precious votive offerings have been found.

There are reasons to believe that in Roman times the road across the St. Bernard was open, not merely to foot-passengers and horsemen, but to vehicles: and this is proved by such passages of soldiery as that of Vitellius' soldiers, guided by Cecina (Tacitus, i, 70). Certainly the passage was at that time, though dangerous, far better than since then, and until very recently. In making the new carriage road on the Swiss side, opened last September, only a few archæological finds were made, among them being some English coins of the XI and XII centuries.

Among the objects found in this season's excavations at the *Plan de Jupiter*, the following are of interest. Three votive plaques of bronze, one being gilt: the latter was offered by an officer of the fifteenth legion: *C. Vettius Sal... p(rimi)p(ilus) leg(ionis) xv v(otum) s(olvi) t(libens) m(erito)*. A second tablet was set up by M. Cassius Festus, a soldier of the tenth legion, and a third by Julius Fortunatus, *beneficiarius consularis*. The number of votive tablets of the great St. Bernard amounts at present to fifty. A graceful bronze statuette of Minerva was found with high-crested helmet, mantle over breast and right hand raised to hold spear. A small number of ornaments, utensils, and arms came to light, among them a gold fibula and three cut gems.

Of the many coins found nearly all were in ground already explored: all were Roman except a few Gallic coins.

Among all the objects discovered by any explorer at the *Plan de Jupiter*, none save the Gallic coins can be assigned with certainty to the pre-Roman age. The instruments, arms, ornaments all belong to the imperial period, to whose beginnings the sanctuary, the hospice and the road of the Pennine mount should be attributed. Through

the Romans the passage became slightly more frequented in the first century B. C., as is shown by the arrangements for its safety made by Cæsar in 57 B. C., and the Gallic coins found. It is probable that before the Roman structures there were no buildings on the mountain : for the worship of Peninus the rock sufficed, around which were discovered so many Gallic coins, together with others of the Roman republican period. Of the imperial period the first century furnishes the largest number of coins and of objects. A catalogue of the Gallic coins, published by Ferrero and Von Duhn, comprised 418 pieces, including the few found in 1890. Since then 74 were discovered. During the excavations of 1890-93, three hundred and three Roman coins were found, one-half of which belonged to the Julian and Claudian emperors.

The temple suffered from violence, at some time, as is shown by the votive offerings broken or cast into the swamp below ; and the buildings of the hospice were consumed by fire. It is impossible to say whether these events were contemporary. On account of Carolingian coins found here it is possible to suppose that some sort of a refuge existed in the ix century. But certainly the place was deserted when St. Bernard of Menthon came here in the xi century to found his hospice at the distance of half a kilometre from the ancient station, on the other side of the lake which occupies the summit of the hill, using for his structure the very stones of the *mansio* and the temple.—*Not. d. Scavi*, 1894, pp. 33-47.

MONTERIGGIONE (ETRURIA).—AN ETRUSCAN TOMB WITH REMARKABLE CONTENTS. —On the property of Sig. G. Terrosi, not far from the railway station of Castellina in Chianti, a family chamber-tomb was accidentally found, excavated in the tufa, supported by a central pilaster and surrounded by sepulchral benches. The numerous and important contents of this tomb date from the third century B. C.

Among the objects found are thirty-five cinerary urns, four of alabaster and the rest travertine. The principal urn is of alabaster with gold lights. It is double—for husband and wife. The two figures are represented on the cover as reclining on a bed. They are the heads of the family here buried, and their names are inscribed in fine characters on the face. The urn is 1.07 m. high and 0.84 m. wide. The rest of the objects consist of: fourteen figured bronze mirrors ; thirty-four pieces of jewelry ; thirty-seven coins, among which are two *dupondes* of Volterra ; fourteen bronze vases of various shapes ; over thirty glazed vases of Etrusco-Campanian ware, forming in themselves a superb collection, with unique pieces ; twenty-eight painted Campanian vases, mostly bell-shaped craters ; also various candelabra, arms and many other objects in iron ; many local vases of yellow ware of

varied forms; vases that appear to be Etruscan imitations of the Campanian style, *etc.*, *etc.*

The number and importance of the objects found in this tomb is so great that they might of themselves form a small museum: and this is what the owner is doing, having transported them to his house in Florence, where he is having them cleaned and repaired. He has, however, promised to give a selection to the Central Etruscan museum in Florence. The director of the museum, Prof. Milani, is to illustrate them in a special memoir.—*Not. d. Scavi*, 1894, p. 51.

ORVIETO.—Excavations have been continued on a small scale at Orvieto, resulting in the discovery of a number of tombs the contents of which appear to be of no remarkable interest, except perhaps a black-figured lekythos with two warriors fighting, and an Attic red-figured amphora, with a laurel-crowned Triptolemos on his winged chariot with two female attendants on one side, and, on the other, three male figures, one carrying a torch in each hand. Among the bronzes is a kottabos base with three lion feet, surmounted by the usual nude figure; also several *simpula*, one of which has dog heads on the handles and a relief of a nude man running. On a red-figured kylix is the inscription $\delta\ \pi\alpha\iota\varsigma\ \kappa\alpha\lambda\acute{o}\varsigma$ repeated twice, and on the interior is a youth on horseback, while a scene from the palaestra decorates the exterior. It had been anciently repaired.—*Not. d. Scavi*, 1893, pp. 327, 356.

PERUGIA.—AN EARLY ROMAN VILLA.—At the *Villa di S. Lucia* outside the gate of S. Susanna have been found the ruins of a villa of late republican times. The villa was surrounded by a wall of travertine blocks according to the Etruscan custom, and its destruction may be ascribed to the time of the famous siege of Perugia in 713–14 A. U.; during the war between Anthony and Augustus.—*Not. d. Scavi*, 1893, p. 355.

POSEIDONIA-PAESTUM.—A GOLD STATER.—Sig. A. Sambon publishes a gold stater of Poseidonia found near Lavello, in the province of Basilicata. It weighs $8\frac{1}{2}$ grammes and is of the same dimensions and type as the well-known silver didrachmas of that city, coined early in the v century. On the obverse, Poseidon striding to right, wielding trident with right and extending left: inscription $\Pi\Theta\Xi\text{EI}$. Reverse: bull to left with retrograde inscription $\Pi\Theta\Xi\text{EI}\Delta\text{A}$. The date is 480–460. There seemed many reasons to regard the coin as false. Gold Greek coins have always been suspected. Eckel was unwilling to admit the Athenian gold coin or the staters of Kyzikos, Lampsakos, and Phokis. The gold coins of Gela in Sicily were held to be false until a hoard of them was found near Otania. Far more reason would there be to doubt this gold stater of Poseidonia, not only because it would be the only example of a gold stater coined in Italy at that time, but because it is an exact reproduction of the silver coinage. Gold was then coined only

in Etruria and at Cumae, and many authorities still deny the authenticity of the Cumæan coins. Sig. Sambon, however, advocates the authenticity of the Poseidonian stater and cites many examples where gold and silver coins have the same type and hardly vary in modulus. Poseidonia itself coined silver and bronze coins of the same type and modulus. The weight of this stater, $8\frac{1}{2}$ grammes, is exactly that of the Persian darics and of the staters of several cities of Asia Minor, derived from the Assyro-Babylonian sixtieth of a *mina*: and it should be noted that from the VI to the IV century the Persian darics were extremely popular and were in circulation over nearly the entire ancient world.—*Arch. stor. per le prov. Napol.*, 1893, 2.

ROME.—STATUE OF A FLUTE-PLAYER.—In the ruins of the Palace of the Nummii Albini near the corner of Via Firenze and Via Venti Settembre, part of which had already been discovered some years ago, several pieces of sculpture were found. The most noteworthy piece is a statue, 1.15 m. high, of a youth playing on the tibia, lacking the head and right forearm. It is a reproduction of a Praxitelean original. One copy is in the Vatican (Helbig, *Führer*, 19); another in the Capitol (*ibid.* 130). For the literature consult Friedrich-Wolters, *Bausteine*, 1501, 1502. The statue is nude, only that the left shoulder is covered with a tiger's skin, part of which hung along the tree trunk against which the figure leaned. It is well modelled and of excellent artistic execution. There was also the statue of a nymph, one metre high, nude above, who holds with both hands a large shell. The head alone is wanting, and it was carved separately.—*Not. d. Scavi*, 1893, pp. 357–8.

STADIUM.—In opening an ancient passage on the west side, leading to the House of Augustus, there came to light a beautiful head of Apollo of Parian marble, lacking the nose and part of the right cheek; also a fragment of a small base of green porphyry which is judged by Prof. Schiaparelli to be part of the throne of an Egyptian Pharaoh. It is covered on two sides with hieroglyphics, contains signs common to the prenomen of a number of Pharaohs of the XIX and XX dynasties, but Prof. Schiaparelli believes this to relate to Rameses II.—*Not. d. Scavi*, 1893, p. 358.

RUVO (APULIA).—A GREEK TOMB.—In digging a cellar in the town of Ruvo a Greek tomb was found made of a tufa case or *pila*. It was in good preservation and no earth had penetrated, for it was covered by a double slab, one of tufa and another of travertine. The mortuary case was let into an aperture dug in the rock. Only one of the objects contained in it merits attention, and this is an Attic amphora of great importance, for on it is represented the myth of Theseus descending to the bottom of the sea to the palace of his father, Poseidon, to get the ring of Minos and to receive from Amphitrite the gift of the gold crown. This painting dates at least as far back as the last quarter of

the fifth century. In the myth of Theseus, we see first the standing figure of a young woman (Amphitrite) in long broad-sleeved chiton and pallium wrapped about her leaving her right arm and shoulder exposed. The head, like all the others, is in profile. Then comes a youth (Theseus) in short tunic with delicate folds, and in a chlamys: he clasps the right hand of the next figure and holds an indistinct object in his left. In front of this youth stands Poseidon, with long pointed beard, and carrying trident in his left while he clasps the youth's right hand. Behind Poseidon is an old bald man (Nereus) who turns around to speak to the last figure in the composition. He leans with his left hand on a long sceptre and rests his right on his hip. The last figure is a young woman (a Nereid) who holds toward the old man a patera, and holds in her right a prefericulum, offering drink to the departing guest. Between the last two figures rises a delicate Doric column, a symbol of the palace of Poseidon, in which the scene takes place. This scene appears only on three other vases: (1) Agrigentine krater (*Monum. ined. Ist. I*, 52, 53); kylix of Euphronios from Caere (Ghirardini, in *Mus. Ital.* III, 1); a Bolognese krater (Ghirardini). Sig. Jatta says that the Bolognese krater is too late to enter into the comparison, and that the new krater from Ruvo is a few decades later than the cup by Euphronios, and about contemporary with the krater of Agrigentum. *Æsthetically*, and in its treatment of the myth, it is the finest. The style is bold, grand and simple. It comes between the severe style which ends in about 440 B. C. and the later style which comes in about 403 B. C. Sig. Jatta makes a detailed comparison of the composition as it is represented on the various vases, figure by figure, and in this we cannot follow him. He discusses Poseidon's paternity of Theseus and the attribution to the bald old man of the name of Nereus, whom he supposes to have been Theseus' guide to the palace of Poseidon and to have accompanied him thence.

On the other side of the vase is a composition which he calls *scuola di musica*—a lesson on the six-corded lyre and another in singing. There are two masters and two pupils: or perhaps master and judge. —*Not. d. Scavi*, 1893, pp. 242–52.

STRONGOLI=PETELIA (CALABRIA).—PEDESTAL OF AN HONORARY STATUE TO MANIUS MEGONIUS LEO AND HIS TESTAMENT.—In October, 1892, Dr. Trombetta announced that on recommencing excavations in the commune of Strongoli there had been discovered the pedestal of a statue of a single block of marble, 1.25 m. high and 0.60 m. wide without the cornice. It was found near its base, which remained *in situ*, and it contained on the front an honorary inscription to Manius Megonius Leo, and on the left side a chapter of the testament of this personage. Together with the pedestal was found the left hand of a bronze statue more than life size and many other pieces belonging to a bronze statue.

On the same site was uncovered the section of a wall constructed of immense blocks and which stood in relation to other constructions at some distance, evidently ruins of grandiose structures. No excavations have been made here without copious discoveries, and there were many reasons for placing on this site the ancient city of Petelia. This conjecture has been now confirmed by the inscription of the statue found *in situ*, on the spot which must have corresponded to the upper part of the forum of Petelia where, as can be seen by reading the inscription, the statue was to have been placed. Excavations made in 1886 gave the fragments of a bronze female statue, of a bronze male statue, and two marble pedestals with inscriptions, one in honor of Lucilla Isaurica, the other in honor of Cedicia Iris. They served as bases for statues which the Petelians erected, and in view of which Megonius made to them important donations. These pedestals also were found overturned near their bases, which were found *in situ*.

In the opinion of Prof. Barnabei these discoveries do not entirely settle the question of the topography of Petelia. This site was but ill-adapted for defense, and yet Petelia long resisted the Carthaginian assaults and was finally conquered only by famine. Furthermore, all the antiquities here found belong to the Roman period. It would therefore appear probable that before the Roman conquest Petelia was situated on the hill where is the modern Strongoli, to which again the remnant of the inhabitants retired during the piracies and wars of the Middle Ages.

The Roman city, at all events, was situated on the plain, and, according to Strabo, was the metropolis of Lucania. According to the inscriptions thus far found its flourishing period was extremely limited, beginning with Trajan and not extending later than Antoninus Pius—about half a century. It may even be supposed that its fictitious importance was due to the munificence of one individual, the man whose honorary inscription and part of whose will have now come to light. As they are of importance for municipal history in the imperial period, they will be here reproduced :

| | |
|------------------------------|--|
| M • MEGONIO • M • F • | <i>Manio Megonio Manii filio</i> |
| M • N • M • PRO • N • COR | <i>Manii nepoti Manii pronepoti Cornelia</i> |
| LEONI | <i>Leoni</i> |
| AED • IIII • VIR • LEG • COR | <i>Aedili iiii viro lege cornelia</i> |
| Q • PP • PATRONO • MV | <i>quaestori pecuniae publicae patrono mu-</i> |
| NICIPII • IIII • VIR • Q • Q | <i>nicipii, iiii viro quinquennali</i> |
| DECVRIONES AVGVS | <i>decuriones, Augus-</i> |
| TALES POPVLVS QVE | <i>tales populusque</i> |
| EXAERECONLAT | <i>ex aere conlato</i> |
| OBMERITAEIVS | <i>ob merita eius</i> |

KAPUT EX TESTAMENTO.

Reip(ublicae) municipium meorum, si mihi statua pedestris in foro superiore, solea lapidea, basi marmorea, ad exemplum basis quam mihi augustales posuerunt, prope eam quam mihi municipes posuerunt, posita fuerit (sestertium) c(entum) m(ilia) n(ummum), quae eis me vivo pollicitus sum, dari volo.

5. Ea autem condicione (sestertium) c(entum) m(ilia) n(ummum) q(uae) s(upra) s(cripta) s(unt) dari volo, ut ex usuris semissibus eius pecuniae omnibus annis, die natalis mei, qui est x kal(endas)

April(es),

distributio fiat decurionibus epulantibus (denariorum) ccc, deducto ex his

sumptu strationis; reliqui inter eos qui praesentes ea hora erunt

10. dividantur. Item augustalibus eadem condicione (denarios) c l dari volo

et municipibus Petelinis utriusque sexus et more loci (danarios singulos) om-

nibus annis dari volo, item in cena parentalia (denarios) l et hoc amplius sumptum hostiae, prout locatio publica fuerit, dari volo.

A vobis, optimi municipes, peto et rogo per salutem sacratissimi principis

15. Antonini Augusti Pii liberorumque eius, hanc voluntatem meam et dis-

positionem ratam perpetuamque habeatis, totumque hoc caput testamenti mei basi statuae pedestris, quam supra a vos (sic) petivt

(sic) mihi po-

natis, inseribendum curetis, quo notius posteris quoque nostris esse possit vel eis quoque qui munifici ergo patriam suam erint ad-

20. moniant.

The name of Megonius occurs four times in the Latin inscriptions of Petelia. The first is on the pedestal of a statue erected to him by the *augustales*, which contains, beside the dedicatory inscription, a chapter of his will mentioning bequests made by him which earned him this honor. It is in the church of Strongoli and was known as early as the XVI century. His name occurs in another inscription on a slab now walled into the Monte dei Pegni at Strongoli. It adorned the base of a statue also of Megonius, but erected to him not only by the *augustales* but by the other orders of citizens when Megonius had reached the highest of his municipal offices, not yet mentioned in the preceding inscription. He is mentioned the third time on the base of the statue of his mother Cedicia Iris (*Not.*, 1886, 172, *Ephem. Epigr.* VIII, 260). The fourth instance is in the inscription of the statue

erected to Lucilla Isaurica (*Not. and Eph. Ep., ibid.*). This new and most important inscription makes the fifth.

The date of Megonius is now fixed by the new inscription in which he calls upon his fellow-citizens to carry out his will *per salutem sacratissimi principis Antonini Augusti Pii liberorumque eius*, and this gives the limits of 138–161 A. D.

The reason for which the first statue was erected to Megonius was that he left to the municipality the sum of ten thousand sesterces, the Cedician vineyards which he inherited from his mother, a part of the Pompeian property, *etc.* The *augustales* alone erected the statue because they benefited almost exclusively by these legacies which were destined to the support and use of the two triclinia which Megonius had given them for public banquets.

The second statue was erected by all the orders of citizens—*decuriones, augustales*, and *populus*—by money contributed by them. The tablet recounting the benefits of which this was a recognition has been lost.

The pedestal of a statue found some years ago bears an honorary inscription to Lucilla Isaurica, daughter of Caius, in memory of whom, says the inscription, Manius Megonius Leo had given to the municipium one hundred thousand sesterces. Prof. Barnabei believes her to have been his wife. He gave a similar amount in memory of his mother, Cedicia Iris, as is attested by the inscription of her statue. In every case the amount given was to be put out at interest (in one case six per cent.), and this spent every year for a public banquet and for distribution of money at the anniversary of birth and death.

It is amusing to reflect on the vanity of the man who was not satisfied with two statues of himself but wished for a third in the same city, and bound his fellow-citizens by a public document to erect it to him, as a condition of a large gift. It is a rare case of effrontery: in fact, Prof. Barnabei believes it to be unique and seeks to explain it. He suggests that as Megonius had gained no new honors, since his last statue, and as it would appear simply ridiculous to have the new one a mere repetition, the explanation is to be found in the expression *statua pedestris* in the new inscriptions. In contrast, therefore, to an equestrian statue in the forum, he wished himself represented standing, not far from similar statues of his mother and wife.—*Not. d. Scavi*, 1894, pp. 18–29.

SYRACUSE (SICILY).—Prof. Halbherr writes: "In Eastern Sicily archæological researches continue to yield an ever-increasing harvest. Upon the Achradina of Syracuse a tomb has been found, which proves the existence in this locality of a necropolis hitherto unsuspected, but partially destroyed in ancient times. It contained painted Greek

vases of the earlier part of the sixth century B. C., and throws an unexpected light on the topography and history of the ancient city. Dr. Orsi has concluded his excavations of the Olympieion of Syracuse, which had already been partially explored in 1836 by Signor Cavallari, but afterwards covered up. The present condition of the ruins is deplorable, all that remains being two columns and a few fragments of the foundations of the stylobate. The temple will now remain uncovered. Meanwhile Dr. Orsi has ascertained the extreme limits of the building, and has measured the inter-columnar spaces, and has thus prepared the materials for the reconstruction of the original plan. The Olympieion is found to be long and narrow, a character peculiar to very archaic temples. The epistylia would appear to have been in wood with terracotta coverings. Fresh researches were also made in the catacombs of S. Giovanni e Cassia, where Dr. Orsi was able to take copies of more than a hundred new sepulchral inscriptions, partly inscribed on marble tablets and partly scratched upon the wall. A new three-storied catacomb was discovered on the same occasion. The Syracusan campaign of excavations for this year will conclude with the exploration of a Siculan necropolis in the mountains.—HALBHERR in *Athenæum*, Aug. 5.

Event traces of a Scaean gate have been observed by Prof. Orsi in the circuit of the walls of Dionysius.—*Athenæum*, Aug. 12.

ARCHAIC TOMB AND VASES.—In the *Scavi* we find an account of the tomb mentioned above. The beach between the south edge of the terrace of Acradina and the Porto Piccolo at Syracuse is in great part covered with ruins and dumped earth, containing archæologic deposits of the most diverse periods. At a point where there is an artificial stratum of about 1.50 metre some rude tombs were found. One consisted of a slab of calcareous stone resting on the rock, below which were some burnt bones and a few bases which have been placed in the museum of Syracuse. This is undoubtedly an archaic tomb for incineration. It is isolated, but must have formed part of an ancient necropolis, up to the present unknown and partly destroyed at an early date, probably during the Græco-Roman decadence. To it belonged also some few trench-tombs excavated in the rock next to the Novantieri field. The contents, however, of this tomb for incineration are of especial interest for the history of ceramics and the topography of ancient Syracuse. The objects were: (1) an aryballos of brown bucchero; (2) a kylix with metallic glaze with neck and low basin; (3) a kylix with black and red bands and rude palmettes at the base; (4) a large bell-like skyphos. Its ground is a bright coralline red, bounded below by a zone of double dots and a foliated Doric kymation. Twelve large figures are represented on the two faces, and two

smaller figures under the handles. On one side are three couples of a warrior and an Amazon, confronting one another in fight. The warriors wear the crested helmet, *αἰλῶπις*, a decorated cuirass, below which emerged the folds of a short chiton, *enemides*, a circular shield and a lance. The Amazons are of the type of Athena Promachos, with Attic helmet, with low calotte and without ear-pieces, a belted chiton, variously decorated, over which they wear as corselet the *χιτωνίρκος* or *διπλοῖδιον*, a round shield and a lance. On the other face are five women, who appear to be Amazons from the similarity of their costume to the preceding. But they are unarmed except for their helmet, and are dancing around Hermes. Under the handles are two small figures of hoplites. Representations of Amazons in very archaic vase-painting are exceedingly rare.—*Not. d. Scavi*, July, 1893.

EXCAVATIONS IN THE NECROPOLIS DEL FUSCO.—We give here the full report on Prof. Orsi's important excavations in the Syracusan necropolis called *del Fusco*, which was promised in our last issue (ix, p. 328).

Prof. Orsi begins his report by saying: "The beginning of a systematic exploration of the great Syracusan necropolis *del Fusco*, has been greatly desired by native and foreign scientists, because this vast expanse of tombs that must contain so many relics of the ancient Dorians of Syracuse, though for centuries searched by treasure-hunters, tomb-spoilers and stone-cutters, has been but seldom, and for a few brief moments, the field for the activity of the keen-eyed and light-handed archaeologist. Though vases and other objects from this necropolis are dispersed through many collections, all that is known of it is limited to the two reports of Mauceri and Cavallari and to a note by myself¹. Not only the hope of large additions to the museum, but the study of many problems connected with the history of vase-painting, terracotta sculpture, and religious antiquities, as well as with the history and topography of Syracuse, made it advisable to proceed at once to orderly researches. I therefore proposed—and the Ministry consented—to undertake a first campaign, which lasted, with short interruptions, from Dec. 5, 1892, to Jan. 12, 1893, with an average of 18 men under the direction of Sig. Ed. Caruso.

"It being my intention to examine minutely in this and successive campaigns the entire area of the Fusco, I limited myself this time to the exploration of three sections, doing this in so thorough a manner as to exclude the possibility of any future discoveries in this area. This area consisted of: (1) a long strip on the southern border of the

¹ MAUCERI, *Relazione sulla necropoli del Fusco in Siracusa, etc.*, Palermo, 1878; CAVALLARI, *Relaz. sugli scavi eseguiti nella necropoli del Fusco dal 2 Sett. al 4 Ott.*, 1885, (*Not. d. Scavi*, 1885, pp. 49–54). Idem, *Su alcuni vasi orientali con figure, etc.*, Palermo, 1887; ORSI, *Not. d. Scavi*, 1891, pp. 404–11, describing 48 tombs discovered in 1890.

necropolis . . . of an approximate area of 4795 sq. met., in which strip there had already been discovered 13 tombs, described by me in the *Not. d. Scavi* of 1891; (2) a small piece east of the line of railway Syracuse-Noto, and south of the road Syracuse-Florida, with an area of 2400 sq. met.; (3) a small piece of 2500 sq. met. southwest of the Osteria Regina. In the two latter sections Cavallari had found some tombs in scattered excavations; in the third I found in all 176 tombs, about half of which had either been completely devastated or already explored by Cavallari; and of these, therefore, I took no account. It may then be said that almost the entire southern border of the necropolis has been examined, and that there remains for future campaigns the plain as far as the Temenites hill.

General Remarks.—"The sub-soil of the necropolis is formed of an immense bank of porous tufous calcareous stone, of pliocene formation, rich in remains of marine fauna, and not excessively hard: this rock is at a depth of from 30 to 80 cm. below the stratum of *humus*, and in it the Greeks opened colossal ditches for the burial of their dead; but owing to the bad quality of the stone, most unsuited to the preservation of the bodies, it was necessary to use cases and flooring, as will be shown later.

"The necropolis was certainly outside the Gelonian walls; the contents of the 135 Greek sarcophagi (I leave out the few barbaric tombs) belonging to the period between the VIII and V centuries are pre-Dionysian: with this fact is connected an important archaeological question . . . whether the necropolis was within or without the great defensive works constructed by the tyrant for the protection of the enlarged city; I am inclined to believe that a great part of it was included in these walls.

"The persistent, intense and fatal devastation of the surface of the ground from ancient times has obliterated every trace of the external signs of the tombs, and, however persistently I have searched for the smallest remains, not a single one of the 135 tombs shows any traces of *ædicula*, *tempietti*, *heroa* or other structures. Though their lack may correspond to the archaic period of the tombs, the entire lack of *steles*, *cippi* and inscriptions is surprising. On the other hand, on the southern border of the necropolis, at a short distance from the edge of the terrace, I uncovered in the first tract of land a piece of wall running east—west along a distance of about 30 m.: it is a good construction of which two courses of blocks remain. Another piece, whose foundations extended over a length of 20 m., and was exactly parallel to the first piece, was found at the west end of this land. As no tombs could be found outside this wall, it may be certainly regarded as the enclosing wall of the necropolis, the *ὄρος τῆς νεκροπόλεως*. Traces of analogous

walls I found in the necropolis of Megara Hyblaia, and they are not lacking in Greek necropoli that have been thoroughly explored. The disappearance of this wall at other points of the limits of the Fusco necropolis is owing to the diminution of the area of the terrace on the south from the constant work of stone-cutters.

"At the west end of the first piece of land, outside of the cemeterial area, I found a series of long, deep trenches cut in the rock, 60 to 70 cm. wide, two metres or more deep, and from two to eight metres long. They are placed in parallel rows from north to south and, though at first sight resembling tombs, they must have been used for draining purposes. In their midst was a large rectangular well, six metres deep down to a place where water still oozes from the rock.

"In so far as the *historic vicissitudes* of the necropolis are concerned, the great trenches No. 101 and *D* are proofs of a devastation, a *τὴν βωπονομία*. In the second and third sections, the nearest to the city, the devastation of the archaic Greek tombs by the later inhabitants—Romans and Byzantines—is still more apparent. In the centre of both these lots I opened up the entrances to hypogeic rooms, with fallen vault, which seem to be of a late-imperial period: in the course of this and the succeeding period some very poor barbaric tombs were opened up in the midst of the Greek sepulchres, which were despoiled and transformed into miserable poliandric tombs, as in Nos. 73 and 71.

"The *normal shape* of the tombs is that of colossal ditches and counter-ditches, the former covered with heavy slabs, the latter filled with earth: the body was deposited either on a wooden bed=*κλίνη* or in a box=*σάρος*. The porous subsoil permeated with water made this necessary, and that it was a fact is shown by numerous metal nails sometimes attached to wooden fibres. But even this did not preserve the bodies from rapid disintegration. Only the few bodies that were placed in monolithic sarcophagi of fine white calcareous stone have been perfectly preserved. Elsewhere, as at Megara Hyblaia, the different geological structure did not require such an arrangement; for instance, in the third lot, where the soil is deeper the sarcophagi are more abundant than the trenches. The white sarcophagi are for persons of distinction, those made of tiles are rare. I found no tombs with *loculus*, such as were found by Cavallari and Mauceri, nor tombs in two stories.

"In so far as the *sepulchral rite* is concerned, I found 122 buried bodies, 4 surely and 1 doubtfully burnt, and two abnormal burials (84, 126). Combustion is therefore rare, as might have been expected, for the necropolis hardly invades the fifth century B. C. Contrary to the case at Megara, a rigorous rule is observed in the orientation of bodies and tombs. In the first lot all the tombs go from E. to W. with the

skulls always to the E.; in the other lots there is a slight license, for I found four skeletons with skulls to the S., three to the N. and six to the W., but in half these cases the abnormal position was made necessary by the plurality of bodies. In tombs 84 and 127 the peculiar form of burying the skull alone was observed, whereas at Megara there were two headless deposits (208, 235). Another difference is that—while at Megara, where it was easy to open and shut the tombs, each tomb served for an entire family, and contained a number of bodies—at the Fusco each large ditch contained but a single body, perhaps because it was difficult and expensive to open it; and thus the family tombs the *μνήματα κοινά* or of each *γένος* were formed of groups, such as 47, 32-40, scrupulously distanced and in line. Of the funeral banquets partaken of on the spot (*περιδειπνα*) or of the *imbandigioni* destined for the deceased there are traces in the vases placed around and above a number of tombs. The large vases, like those of tomb 108, contained liquids, and certainly were related to the sacred lustrations, the *χοαί*, ἄπερ νεκροῖσι μειλκτήρια. Gradually the custom comes in of accompanying the defunct with the objects familiar or dear to him, such as ornaments and jewelry, but still here, as in other Doric necropoli, there is an extreme sobriety in the use of grave-goods.

"The *vases* are the most instructive among the sepulchral objects. It had for some time been known that this necropolis was important for the chronology of proto-Corinthian vases, and now for the first time the exact circumstances and associations under which they are here discovered are known. The form most usually in use is the small heart-shaped lekythos of very pale yellow clay, of various shades, with brown geometric or animal friezes. While two exquisite specimens of tomb 85 stand out clearly from the mass, there remains always in the great majority of cases the problem whether they are Corinthian or Italo-Corinthian, for in Corinth itself a great deal of ordinary work was done by the side of the fine pieces. The summary design of the proto-Corinthian style makes it all the more difficult to distinguish between originals and copies. Still, it appears to me that in the Fusco necropolis there are but few originals and many copies.

"Some proto-Corinthian vases are decorated with geometrico-empaisitic motives, so archaic as to recall strongly the Dipylon style: this is especially the case with the skyphos of tomb 89, the kylix of tomb 108, and an inedited lekythos from preceding excavations. Hence the Fusco necropolis furnishes the transition between the geometric and the proto-Corinthian styles. We also find here illustrated the transition from the proto-Corinthian and Corinthian, for there are some tombs that contain examples of both—such as tomb 29—a fact already noted elsewhere, as at Megara Hyblaia (tomb 499) in a yet inedited

part of the necropolis. According to Wilisch (*Altkorint. Thonindustrie*, 1892) and Dümmler (*Jahrbuch* II, p. 19) the proto-Corinthian style originates from the Dipylon, flourishes in the VII century, at the close of which it is expelled by the Corinthian, but has survivals as late as the V cent. If this chronology be correct we must admit a moment of transition instead of a clear interval between the proto-Corinthian and Corinthian styles. This would seem to be confirmed by the discoveries of Naukratis, where the earliest vases, at the close of the VII cent., are archaic Corinthian, there being none that are proto-Corinthian (Smith in *Journ. Hellen. St.*, 1890). Typical of the transition between the two styles at the Fusco are the small zoned cups (σκύφος, κύπελος) of high campaniform shape and geometrico-empaiistic decoration at the most archaic stage (t. 108), with figures of schematic quadrupeds in the next (t. 29), of depressed and heavy shape, with only bands of decoration in the latest stage (t. 126), and which lasts by the side of the black-figured style. This latter form, which is represented at Megara by hundreds of examples associated with aryballoi and bombylioi, is, on the contrary, extremely rare in the Fuscan tombs until now explored (t. 126), in which the bombylioi and aryballoi are also rare.

"Hence it follows that, with the exception of a few tombs, the zone of the necropolis now explored and described belongs to the most archaic period of Syracusan burials, that is to the end of the VIII and the course of the VII century.

"The kantharoi of black bucchero are numerous, and raise once more the question whether their origin is Etruscan or not. Associated and contemporary with the proto-Corinthian there are vases of enamelled semi-majolica, as well Phœnician as imitations, and one of them has an animal decoration. Rhodes is represented at this early period by a single vase—an amphora in tomb 65, but two other kylikes of this manufacture had already been found in the necropolis.

"While the first and third lots of ground yielded almost entirely proto-Corinthian ceramics, the second gave also black-figured pottery. There were, briefly: a kylix of the *Kleinmeister*; cups of the Epiktetan cycle; large, perhaps Kalkidian, skyphoi; fragments of a Panathenaic amphora; others reminding of the style of Pamphaios, of Nikosthenes (trench D, tombs 74, 82), of Amasis (tomb 74); only two vases of fine red-figured style (tombs 16, 54) of the beginning of the V century—none having artists' signatures or decipherable inscriptions. Chronologically speaking, the ceramics represent the very archaic and the archaic periods—close of VIII to close of VI cent.—and the few examples of the red-figured style are exceptional, being found near the place

where the beautiful *pelikè* with the Battle of the Amazons was discovered, which was published in the *Not. d. Scavi*, 1891, p. 408.

"There are but few terracottas, and they are of common types, so well known in the Greek necropoli of Sicily and Rhodes. Works in metal are also very scarce, as is always the case in Greco-Sicilian necropoli. Here, as in the thousand or more tombs explored at Megara, it is shown that the usual method of fastening the chiton was not with the fibula but with large bronze pins with disk or knob-like head. The few pieces of silver are in part imitations of oriental objects of Græco-oriental rather than Phœnician manufacture. In contrast to the wealth of silver objects at Megara, this necropolis displays the extreme poverty."

After giving this summary of the results of his work and the deductions to be drawn from them, Prof. Orsi passes to a minute description of each tomb and its contents, in which we have not the space to follow him. One point in his report we wish especially to praise, where everything is praiseworthy, and that is the large number of illustrative cuts that accompany the description of the tombs. The value of the *Scavi* would be greatly increased if this were converted into a more general custom.

I will close by calling attention to the two small vases in tomb 85, already referred to as the most exquisite of the proto-Corinthian vases. They are illustrated on pp. 470-71. The first is in the form of

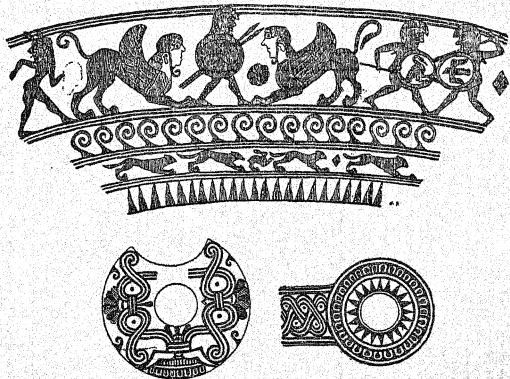


FIG. 2.—PROTO-CORINTHIAN SKYPHOS FROM SYRACUSE.

the fore part of a feline—lioness or leopard—with muzzle resting on extended paws. The fine clay is covered with a brilliant cream; dark red is used for the mane, tongue, lips and ears; black for the eye-brows and cornea; the head is stippled all over, the mouth open and the teeth marked in *graffito*. On the rear section is painted an archaic bearded gorgon mask. The second vase is a small lekythos only 53 millimetres in height, equal in delicacy of design, if not in number of figures, to the two proto-Corinthian examples in the British Museum and at Berlin. The scenes are a hare hunt, a hoplitomachia with a warrior between two sphinxes, followed by a composite being with a human body and a head half-human, half-animal. In the same tomb was another small lekythos 5 cent. high, of the same style, and a majolica alabastron with enamelled surface of light sea-green and of genuine Phœnician workmanship. This tomb is among the earliest thus far found at the Fusco, and certainly belongs to the first half of the seventh century.

I would call attention to a beautiful terracotta recumbent female figure, 17 cent. long, found in tomb 133. It is of early archaic style. The figure rests on the left elbow, and, while the right arm rests on the knees, the left holds a drinking horn. The hair falls in triple curls on either shoulder.—*Not. d. Scavi*, 1893, pp. 445–86.

A writer in the *Classical Review* (June, 1894) selects the following as the most interesting objects found, following the order of the tombs: (No. 16) two r.-f. lekythoi, one with Eos, in bad condition; (19) a large archaic stamnos in fragments, with palmette-patterns on the shoulders; (20) a large model of a biga; (24) five bucchero kantharoi; (28) twenty-four large bent nails of bronze, and (29) a small proto-Corinthian lekythos with friezes of animals; (41) a b.-f. kylix by a minor artist, with unintelligible inscription; (54) a r.-f. skyphos of fine style, with 'mantle-figures,' and (65) an amphora imitative of Rhodian or Melian style, with geometrical patterns, a pyxis and a b.-f. kylix; (74) numerous fragments of b.-f. vases; two late kylixes and two large skyphoi, fragments of Panathenaic amphorae, and of a crater in the style of Nikosthenes; fragments of b.-f. kylixes in the style of Glaukites, and another in the style of Epiktetos. (85) A vase terminating in an animal's head, and several proto-Corinthian lekythoi, one like that in the British Museum, with two friezes and elaborate patterns; also an alabastron of enamelled ware, with figures of animals. (101) An early Corinthian kylix and stamnos, an early pyxis and lekythos, the latter with three dogs running. (113) Two proto-Corinthian lekythoi with dogs and lions, and (115) a b.-f. phiale omphalotos, with ten "mantle-figures." Scattered about were a lekythos with Dionysiac subjects; an olpê with Artemis carrying a stag, at-

tended by a panther, in the style of Pamphaios; an oinochoe with Dionysos, Apollo and Artemis; an ivory counter with an archaic Artemis carrying a stag; boat-shaped and serpent-shaped fibulae, rings of various kinds, three glazed scarabs, and two iron knives.

The finding of seven fibulae in a single tomb is an unusual fact in Greek burials.

TARENTUM.—The works carried on at Taranto during the last few years have yielded considerable archaeological material, which remains inedited in the local museum. Among other things many inscriptions have come to light, and although they are of no especial individual importance, Sig. Viola has done well to publish them in the *Not. d. Scavi*. With the exception of a few fragments they are all sepulchral, and were collected during the works of the military engineers within and about the marine arsenal.—*Not. d. Scavi*, 1894, pp. 61-71.

A ROMAN NECROPOLIS.—In making roads about the city a Roman necropolis has been found consisting of tombs cut in the rock and of sarcophagi. Several inscribed stelae were found.—*Not. d. Scavi*, 1893, pp. 252-255.

TERAMO-INTERAMNA.—Five interesting inscriptions have been found at Teramo, in Picenum.

(1) Q · POPPAEO · Q · F · | MVNIO · ET · COLON | PATRONO. He is mentioned in other Interamnian inscriptions, in *CIL*, ix, 5074, 5076, together with his brother, Caius Poppaeus. Interamna, as we learn from the stone, was both a *municipium* and a *colonia*, which existed side by side in the territory of the commune. The lettering is of the early Empire.

(2) L · FISTANVS L · F · [L ·] TATTAIENVS · L · BARCHA · II VIR [I ·] TER · IN · CAMPVM · EX · C(onscriptorum) D(ecreto) · [P]EQVNIA · SOCIORVM · CAMPI FACIENDVM · COERAVERE · EIDEMQ(ue) · PROBAVERE. On the other side: EXTRA MACERIA[M] IN AGR · M... | ... PRECAR... cf. *CIL*, ix, 5076. The magistracy here mentioned is that of the colony.

(3) . . C · F · SILV[ANVS] | BALNEAS RE[FIG]. The nature of his office cannot be ascertained, but the inscription must relate to restorations of the baths.

(4) . . VS · DEDICAT EPVL | s]ING · DEC · HS · XX · N · SE [v]IR · ET · AVG · HS · X · PLE | b]EI · HS · III · N · DEDIT: see Pannella, *Rivista abruzzese*, ann. viii, fasc. vi, p. 285.

(5) HERO · NEL in archaic letters. NEL may be an obscure local title. Cf. *Herculi ponderum* in *CIL*, vi, 336. The stone was used as a weight, equivalent to fifty Roman pounds.—*Not. d. Scavi*, 1893, pp. 351-55.

VELLETRI.—A PREHISTORIC TOMB WITH AN URN A CAPANNA.—An archaic tomb a *capanna* has been found at Velletri similar to the famous ones found in 1817 and after in the archaic necropolis of Alba Longa,

which led to so much discussion, because it was maintained that they were covered by a layer of peperino emitted in liquid state from one of the Latral craters. The tumulus found at Velletri measured a metre in height and was a metre in diameter at the base (Fig. 4.)

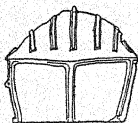
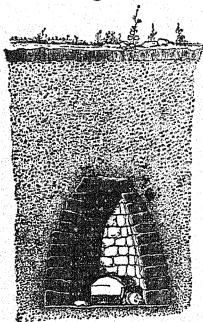


FIG. 4.—PREHISTORIC TOMB AND CABIN-SHAPED URN AT VELLETRI.

On its bottom was the cabin-urn (*urna a capanna*) containing the burned bones and a bronze fibula, and around the urn were the vessels. The tumulus was constructed of pieces of lava, roughly shaped, about 20 m. thick, with cement, and the top was closed with a larger piece of lava roughly shaped like a low truncated cone. The courses of lava projected slightly as they ascended, so that the tomb took a form very similar, on a small scale, to the Greek *tholoi* or domical tombs of the prehistoric period. It appears that another similar tomb was formerly found near this one, but its contents were dispersed.

The site is in the region of the ancient necropolis, but it is not ascertained whether there is a continuity of tombs between this point and the part of the necropolis that has yielded Etruscan tombs *a cunicolo*, and others, superposed in strata, of ever-decreasing age, until we reach the Byzantine period.

In commenting upon this discovery Prof. Barnabei says: "As much has lately been said and written about this form of ossuary, distinctive of certain regions of Germany and our necropoli of lower Etruria and Umbria, I think it useful to give here an exact reproduction of the Velletri urn, from the side and front." At a sitting of the Academy of the Lincei, Dr. Taramelli read a paper entitled *The cabin-shaped cinerary urns discovered in Europe*, in which he refers to this urn, and gives a careful summary of everything known regarding this class of objects. The new urn cannot belong to the earliest type, which is distinguished from the later mainly by the form of the roof, which reaches the ground. At the same time it is interesting to note that this, like other Latial urns of the same type, differs from those of the Etruscan necropoli, in that the perimetral support, on which rests the entire framework of the roof, is not a continuous wall, in imitation of a mud wall or one held together with straw, but is in imitation of a wooden frame,

with uprights ending in a fork planted at equal distances and joined together by interwoven flexible branches. These Latin cabins are then a genuine imitation of the *casa straminea*, or rather of the *casa de canna straminibusque*, as it is called in classic writers (Ovid, Tibul., Dionys.) To understand this properly it would be necessary to expose here the studies made by Count Adolfo Cozza, to show how these cabins were constructed, for he has taken account not only of what Vitruvius says on the subject, but has also studied the primitive system *still in use* among the shepherds in the more abandoned and deserted parts of Lower Etruria and Latium.

Awaiting the opportunity of a complete publication of these interesting investigations by Cozza in connection with the illustration of the Faliscan antiquities of the Papa Giulio Museum, Barnabei here presents a summary of these views, which, it must be remembered, are to be credited entirely to Cozza and not to him.

"If the most ancient cabin was the circular house, then the cinerary cabin-shaped urns that have been found do not represent this primitive form of habitation. The circular form was the easiest to construct, and is the system that is still followed in the Maremmas. A cavity is dug, the earth heaped around it in a circle; in this dyke are planted the forked sticks (*furcae*) which are bound together by twisted vines: against some of these forked sticks are leaned diagonally, at equal distance, six heavy poles, which meet at the summit and are strongly bound by vines at the point where they meet the uprights. All are then united by rings made of flexible twigs. On this framework is fastened the thatch. As the framework was made stronger the lower part of the poles—below where they joined the uprights—was suppressed, and the pointed circular roof rose directly from these uprights. This was the second form, still circular. However, there are no cinerary urns that reproduce either of these types. The desire for increased internal space led, probably, to the elliptical form, which is that represented by the fictile urns." [It seems rather doubtful whether any cabins of this elliptical type can be proved to have actually been constructed. Have they not been evolved from the archæologist's brain by a process of reasoning backward: that, given the plastic imitation, an original must have existed?] The construction of this type of cabin is far more elaborate and difficult than that of the circular form, and it is here most ingeniously explained in details that would be here out of place. Suffice it to say that the form of the roof changes from the sharp conical to an incipient gable, and that every feature of the fictile urns is practically justified.—*Not. d. Scavi*, 1893, pp. 198–210.

VETULONIA.—THE QUESTION OF THE SITE.—Prof. Halbherr writes to us from Crete: "Since my last 'Notes from Italy' were penned (*Athen.* No. 3465) a postscript has become necessary. The commission appointed by the Ministry of Public Instruction to examine the site where it was said a new Vetulonia had been discovered has concluded that there are no traces there of a real city, but only of some ancient building, perhaps a temple. There are, however, some archæologists who, relying on the texts of certain authors, maintain that the site of the Vetulonia of historic times was more in the direction of Massa Maritima, while that of the archaic period would remain identified with the acropolis excavated by Cav. Falchi."—*Athenæum*, April 28.

THE "PIETRERA" JEWELRY AND SCULPTURES.—In a late issue of the JOURNAL (VIII, 4) we noticed the excavations at Vetulonia made at different times during the last four or five years. The interesting results reached by the excavation of the tumulus of *la Pietrera* in 1891 were described. Since that time further details have come to hand in Falchi's report published in the December number of the *Notizie degli Scavi*, regarding the excavations at *La Pietrera* in 1892.

The explorations in 1892 commenced from the outside, and traversed that part of the tumulus which had been pierced in 1882: it is the part of the tumulus which borders on the ancient street of tombs. The first thing to be encountered was the gigantic terrace which once surrounded and sustained the tumulus, composed of a wall about three metres in thickness built of *Sassovivo* and of *Sassoforte* stone. At a depth of 2.70 m. and 17 m. from the central construction, at the same spot where two gold bracelets and a necklace were discovered in 1891, there was found a disorderly pile of stones, covering a group of broken pottery. Except for two common yellowish *balsamaria* of the so-called "Pelagic" type all were of the same *bucchero* ware that was met with in all the stone circles. Later on two cones of *Sassoforte* were found, which marked the site of funerary deposits.

Second tomb.—The first cone was 0.45 m. in diameter and 0.35 m. high, at the NNE. of the tumulus, one metre below the surface and 14 m. from the centre. Below the cone was found a skeleton and the following objects were scattered around it by the cracking of the earth: (a) two heavy gold bracelets; (b) 58 pierced gold balls; (c) 36 gold pendants for necklace; (d) many fragments of thin silver plate; (e) two hollow silver lion-cubs; (f) two broken *balsamaria*; (g) bronze fibulae, broken; (h) iron fibula; (i) amber and ivory; (k) human teeth and bones. The objects, however, that were to the left of the head and all those near the lower limbs remained in place. These comprised: a silver bracelet, two fibulae of bronze and one of iron, with gold leaf, unguent vases and many pieces of *bucchero* ware. The

tomb was excavated at 2.20 m. below the surface and was without covering or protection. The ornaments were grouped at the head of the skeleton, the bucchero ware at its feet, both being covered and broken by a pile of shapeless stones that had been thrown in on them. The skeleton lay transversely along the radius of the tumulus turning its left side toward the centre.

The gold bracelets are similar in form and design to those found during the previous year in this very tumulus, and to those found in the circle tombs called *dei monili* and of *Bes*. The main difference lies in the added embossed figured decoration. They consist of a broad gold band .06 m. wide by .15 long, with two additional narrower bands which make the total length .29 m. The main strip is composed of eight smooth gold bands, whose edges are joined by a delicate gold thread that is made to form varied patterns, while a heavier thread outlines the whole. The peculiarity of this bracelet lies in the four rectangular gold plaques placed at the ends of the different strips and decorated with human representations in relief. On each of the two larger plaques are four heads, in front view, with long, large upward-slanting eyes, heavy lips, a scroll decoration about the ears and a row of neck-pendants. (Fig. 5.) On the two smaller plaques are three schematic

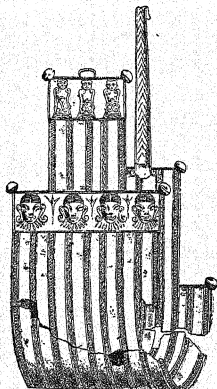


FIG. 5.—BRACELET FROM SECOND TOMB AT VETULONIA.

figures with arms pressed to sides and long straight skirt. The Hathor-like heads remind one of Hittite seals. The thirty-six gold pendants, which belonged to a long necklace, are also of embossed work, and

each one is filled with a human bust of somewhat similar design to the heads on the bracelets, except that the faces are fuller, the scroll decoration has turned into braided curls and the neck-pendants have been turned into an anthemion-like decoration.

Third tomb.—Another smaller cone was found displaced, and it apparently originally covered the third tomb for inhumation discovered at 21 m. from the centre on the west side of the tumulus. The skeleton was placed across the radius. The contents of this tomb were unimportant.

Fourth tomb.—A fourth cone was found at a depth of 1.50 m., on the n. w. side 0.16 m. from the centre. At a depth of 1.60 m. below it, i. e. 3.10 m. from the surface, were found two groups of formless stones, about 1.90 m. apart, corresponding to the head and feet of a skeleton deposited in the earth quite unprotected at the sides and above, lying on its back at right angles on the radius of the tumulus, with one arm extended and the other on the body. The body could not have ever been protected by a wooden case, and the funerary objects left their mark on the stones that touched them.

Around the head were arranged in order many objects in silver and many balsamaria; under the neck were worn three gold necklaces with some pieces of amber and a few bronze fibulae *a sanguisuga*; two gold bracelets were around the arms, and at the feet a mass of earthenware smashed by the stones. The skeleton was covered, at least as far as the pelvis, with a garment of silver or silver-thread to which were fastened small ribbons of gold leaf, of equal size, 2 cent. long and half a cent. wide, arranged in various directions but always at right angles and at a certain distance. This silver stratum was no longer anything but a dust. Sig. Falchi says: "Outside of the gold bracelets and necklaces I can say but little of this very rich deposit, and it is uncertain whether it can ever be recomposed. I was able to satisfy myself that it was in general identical with that of the second tomb, being arranged in the same way and having the same lion-cubs, the same objects in silver *a ciambella*, the same balsamaria, and the same kinds of bucchero ware: there was lacking merely the silver plaque which I supposed to belong to a small coffer. . . . However beautiful and of inestimable value are the ornaments of the second tomb described above, far superior in elegance to those found in the preceding year and to those from the stone circles, still, the bracelets and necklaces that are about to be described have not their equals either in delicacy of workmanship or in actual value, and may be admired in the drawing here reproduced (fig. 2). The technique and form are the same but they are far larger, heavier and more richly decorated than those of the second tomb. The bracelets are 34 cent. long—and there-

fore made for an uncommonly large arm—6 cent. wide, and weigh 72 grammes (fig. 6). They are formed of eight equal smooth bands of gold

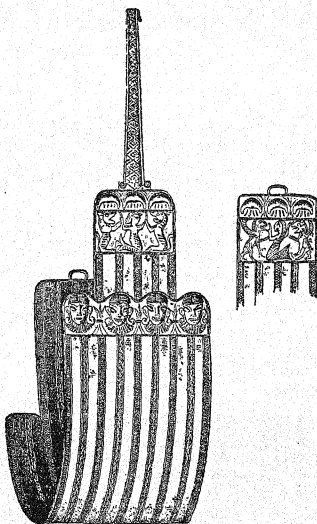


FIG. 6.—BRACELET FROM FOURTH TOMB AT VETULONIA.

joined together by a delicate pattern of the finest hair-like gold threads. Four of these bands in the centre project considerably beyond the others at both ends. One of these projections ends in a long slender band by which the bracelet is fastened. At the end of each wide and narrow band is fastened a gold plate decorated in relief. The two wide plates have in each case four fronting faces in half-relief with low foreheads, Oriental lineaments, up-curling tresses, and an anthemion-like necklace, of the same type as those in the bracelet of the second tomb but more artistic in type and execution. On the narrower end-plates is a kneeling female figure in close-fitting garment and with raised hands between, in one case two rampant winged lions, and in the other two lions resting on their hind quarters but with forelegs raised. Falchi suggests that the female figure is the goddess Astarte. At all events the type and composition are thoroughly Ori-

ental and analogies can be found in Persian, Assyrian, Babylonian, Hittite and Syrian as well as Phœnician works.

Of the three necklaces one is composed of balls of gold, hammered into human faces, like those described above; the second consists of 23 pendants with human faces, slightly different from the preceding, and above them a gold cylinder with a hole for stringing; the third is similar to the preceding, only that each of its ten pendants has two smaller heads in relief instead of one.

Among the many silver objects are: two fibulae a *mignatta* with a decoration added in filigree of the same technique as the bracelets, like others found in the stone circles; two silver lion-cubs of the same dimensions and attitude as those of the second tomb; four large objects—perhaps bracelets—ending in lion-heads.

The group of fictiles at the feet of the body consisted of the usual bucchero ware in fragments.

Fifth tomb.—On May 10 a fifth cone disclosed the presence of another sepulchral deposit, 15 m. from the centre and 0.40 m. from the surface. The two groups of stones were 1.20 m. below the cones. The skeleton was found under all the same conditions as above. The objects found on and about the skeleton were not of remarkable interest.

The excavations were stopped here, leaving two-thirds of the tumulus still to be explored, and giving good hope of important discoveries in the future.

New excavations inside the hypogeum.—The two successive domical hypogeums erected in the centre of the tumulus have been already described (JOURNAL, vols. VIII and IX). When, soon after its erection, the first of these tombs fell in, it was found necessary, in order to build the second tomb upon its crushed walls, to remove all the earth of the tumulus above it, to carry off the ruins of the fallen dome, remove the sepulchral monuments that had been buried and crushed under the ruins, and strengthen the walls that remained standing in order to enable them to support the weight of the new structure. The excavations of this year have shown how all this was done; how the great spur was built up in the centre of the old walls; and how the entire substructure was buttressed and connected by immense blocks.

The first efforts were directed toward finding the earlier corridor, leading from the outer edge of the tumulus to the first hypogeum. This was done without difficulty, and it was found to have been filled in with squared or wedge-shaped blocks of *sassoforte* and with thin slabs of the same. This early corridor follows the same course as the second, at a depth of 2.85 m. below it. It is 22 m. long, or eight metres longer than the second, and opened on the street of tombs which anciently bordered the tumulus. Its walls are largely of slabs

of *sassomorto*, not placed upright, as is the case in the upper passage, but leaning outward, and instead of being parallel, as in the upper passage, they widen out as the passage proceeds toward the open; so much so that the passage which, like that above, has a width of 0.90 m. at the entrance to the chamber, attains a width of 2.70 at the outer entrance. The height of its walls, also, increases in a similar way, but only as far as the entrance of the upper passage, when they begin again to diminish in height. Thus, from a height of 1.80 m. near the entrance, it reaches a maximum of 3.17 m., describing a curve instead of following a straight line. At a certain point the walls are no longer inclined and made of *sassomorto*, but are upright and of granite. It is evident, therefore, that the passage was in part (*sassomorto*) excavated in the tumulus, with walls, but without vaulting, and in part built in the open of granite blocks and covered with slabs, forming a long alley of diminishing width leading toward the centre of the mound.

It would be impossible, on account of the great amount of demolition, to ascertain what annexes there may have been to the primitive structure. It is certain, however, that no such side cells existed as those of the second tomb.

An interesting group of bucchero vases was found at the entrance to the lower passage, evidently placed there by the builders of the second monument.

Sculptures belonging to both chambers.—It has already been stated (JOURNAL, VIII, p 627) that these two domical chambers appear to have contained monuments of women only, whose life-size nude figures, carved in stone, reclined upon funeral beds. Among the fragments of such monuments that came to light during this campaign are the following:

- (1) Female head of natural size (fig. 7), of yellow *pietra fetida*, with large pointed oval face, large almond-shaped eyes, small mouth with projecting lips, low forehead and hair divided in the centre and falling behind high and prominent ears in curls that are then brought forward over the shoulders. This is the same type as is reproduced by the dozen in the beautiful jewelry (bracelets and necklaces) already described.



FIG. 7.—ARCHAIC FEMALE HEAD IN STONE FROM HYPOGEUM, VETULONIA.

- (2) Slab of yellow *pietra fetida* having in relief of natural size the upper half of a nude female figure, without the head (fig. 8); the arms are brought together between the breasts, the fingers of the small hands being shut

and the thumbs pointing upward. The figure seems to be in the attitude of repose, as if the head had rested on a pillow. The regular hollow made at the neck shows that the head must have been carved in a separate block and attached. Prof. Milani believes that the head described above belongs to this figure, but Sig. Falchi objects that the bust was found among the undisturbed ruins of the lower tomb, and certainly belongs to it, while the head was found near the surface and could hardly have belonged to any but the later monument. There appears, besides, to be some difference in the color of the two stones.

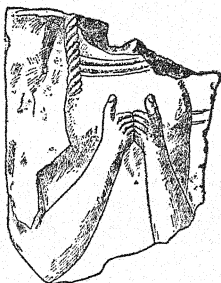


FIG. 8.—FRAGMENT OF FEMALE FIGURE IN RELIEF FROM HYPOGEUM, VETULONIA.

(3) Tablet of *sassofetido* on which is carved merely a decoration of mæanders: it was found 3.50 m. below the present surface of the tumulus, and belongs to the earlier tomb.

(4) Head of a woman, of natural size, with the face almost completely defaced. The mass of hair, arranged in curls on the front, falls behind in long perpendicular strings.

At the conclusion of his report Sig. Falchi remarks, after speaking of the building of the second tomb: "The tumulus thus enlarged served for the burial of illustrious persons, all or nearly all women, whose bodies, robed in all their ornaments of gold and silver, were deposited in deep trenches, excavated in the earth of the tumulus unprotected and uncovered, and then stoned at the head and feet and covered with earth: they were all arranged in one direction, turning their left side toward the centre, in the same way as has been found to be the case in a stone circle in the Sagrona. The contents of these tombs is in all things similar to the great quantity found in the stone circles, except for the arms, domestic utensils and furnishings for chariots and horses, which appear in all the circles, but have not yet been found in the tumulus of *la Pietrera*.

"I may add, as I have already had occasion to remark, that these tombs—as well as the deposits which I have termed foreign that have appeared in the primitive necropolis of Poggio alla Guardia, with similar grave objects, but with only the teeth of the deceased—are all in complete antagonism to the character and style of the Italic well-tombs of Vetulonia and of all the necropoli of Etruria, and are similar, in a less advanced stage of culture, only to the famous

tombs found at no great distance from Rome, such as those of Caere, Vulci and Palestrina." This fundamental fact is developed by Falchi in his *Vetulonia e la sua necropoli antichissimi*.—*Not. d. Scavi*, 1893.

CHRISTIAN AND RENAISSANCE ART OF ITALY.

INSTITUTE OF ART HISTORY.—A circular has been issued on the part of a number of the leading gallery directors and art historians of the Continent, proposing the foundation of an Institute of Art History on lines somewhat analogous to those of the German Archæological Institute at Rome. The main objects of such an institute are described as being (1) the establishment of the richest and most systematic collection possible of materials for the study of art history, in the shape alike of books, photographs, and other reproductions of all kinds; (2) the appointment of a resident director qualified to organize the library and collections, to guide students in their researches, and to stand as a kind of official head and leader of these studies. The place designated as the most appropriate centre for such an institute is Florence, and it is proposed to attempt to make a beginning by means of private donations and subscriptions, before appealing for aid in the shape of Government subventions. Among the signatories of the prospectus are Dr. Bode, of Berlin; the Commendatori Cavalcaselle and Gnoli, of Rome; M. Hymans, of Brussels; Prof. Justi, of Bonn; Prof. Lützow, of Vienna; Prof. Venturi, of Rome; Prof. Schmarzow, of Leipzig; Dr. Bayerdorfer, of the Munich Gallery; and Dr. M. G. Zimmermann. The three gentlemen last named are the provisional executive committee for carrying out the scheme.—*Athenæum*, April 21.

The full text and complete list of signers is given in the *Archivio Storico dell' Arte*, 1894, March-April.

LOMBARD ARCHITECTS AND NORMAN ARCHITECTURE.—The connection between Lombard and Norman architecture has been recognized to be very close, especially since the works of Dartin on Lombard and Ruprich Robert on Norman architecture. That the Lombard Romanesque was the earlier of the two seems hardly susceptible of doubt. Clustered piers, ribbed cross-vaulting, broad galleries over the nave—these fundamental features are to be found in Lombardy not only earlier than in Normandy but in more logical connection. The use of clustered piers in early Norman churches where wooden roofs were still used instead of vaults—whereas the entire *rationale* of such piers was based on cross-vaulting—this feature alone would be sufficient to show that the style did not originate in Normandy but was copied, and the logical conclusion was that it was derived from Lombardy. Thus far, however, but little evidence for this fact has been gathered, so that the editor was impressed by reading a passage in the *Archivio Storico*

Lombardo (1894, 2). It is in a review, by Pietro Rotondi, of Giuseppe Merzario's recently-issued book on the Comacine artists, *I Maestri Comacini, storia artistica di mille duecenti anni* (600-1800). This is the passage: "È narrato di un vero esodo di maestri Comacini passati in Francia, verso il mille, dietro la guida di S. Guglielmo d'Orta. Questo Sacerdote architetto nacque di nobile schiatta nell'isoletta di S. Giulio del lago d'Orta; e andato in Francia, vi eresse molti santuari, pei quali dovette colà attirare numero grandissimo di uomini della sua patria, dice una cronaca francese, cioè di maestri Comacini. Invitato poi dal Duca di Normandia, trovò che molto bene poteva fare in quel paese; e vi stette, circondato dai suoi artefici, bene venti anni fondandovi quaranta monasteri, la fisionomia dei quali si ripeté per tutto il settentrione Europeo."

Without examining the book itself, to see what documentary foundation such statements rest upon, they can be accepted only *cum grano salis*. The statement is briefly this: An architect monk or priest, William, born on an island in lake Orta, went to France where he built many churches and gathered about him many artists of his own nation. He then, on the Duke's invitation, settled in Normandy, where he lived for twenty years surrounded by his workmen, and founded forty monasteries.

I am not aware of having seen this series of facts mentioned before; and perhaps they may, if correct, solve the problem of the rise of Norman architecture.—[ED.]

PRESERVATION OF THE MONUMENTS OF LOMBARDY.—During 1891 and 1892 a different arrangement was made, under the auspices of Minister Villari, for the custody of the artistic patrimony of Italy. The new method consisted in the organization of *uffici regionali*, or provincial boards, each of which takes charge of a certain region, such as Lombardy, Venetia, Tuscany, the Marches, etc. A detailed appreciation of the plan was given by Luca Beltrami, apparently its originator, in the *Nuova Antologia* of 1892, No. VII. The task is complex and difficult, and the training of a suitable personnel, the establishing of satisfactory relations with the government, with communal, religious and other public and private bodies having monuments in charge, is one that will take a long period of time and hard work to accomplish. It must awaken the interest of the masses, which is so deficient, enlighten the general ignorance, which is so dense, harmonize the various interests which are so discordant and contentious. What it has taken more than half a century to do in France may well occupy Italy for at least as long.

The fruits of the first year's work of the *Ufficio Regionale* for Lombardy (1892-3) are shown in a business-like report by Luca Beltrami

published in the *Archivio Storico Lombardo* (1893, No. 3). To it should be added the work on the preparation of a catalogue of all the works of art in the province, and an historico-artistic bibliography of Lombardy.

ITALIAN PAINTINGS IN PRIVATE GERMAN GALLERIES.—This is the title of a series of jottings by Fritz Harck, published in the *Archivio Storico dell' Arte* (Nov.-Dec., 1893). The illustrations are of Jacopo da Valenzia, Tiberio d'Assisi, Correggio. The paintings illustrated and the rest of those described are in the gallery at Sigmaringen. An interesting Venetian painting of the xiv century is by the rare master Paulus, and is signed and dated 1358. The inscription should read evidently MCCCXVIII *Paulus cum Johanninus filiu eiu piserunt hoc op.*

The paintings at Sigmaringen number 235, and are mostly German and Dutch. Of the Italian a dozen belong to the xiv cent.

PHOTOGRAPHS OF MONUMENTS.—We wish to call attention to two collections of photographs of mediæval monuments made by Sig. R. Moscioni, the Roman photographer (10, Via Condotti). The first series, made on behalf of the Italian Ministry of Public Instruction, is entitled *Apulia Monumentale*. They are 235 in number, and of larger than normal size; and they give an admirable view of the wealth of mediæval architecture—Norman, Swabian, Angevin and Aragonese—to be found in Bari and the adjoining provinces. These Romanesque monuments are among the finest and largest in Italy, and are most important for the history of architecture. They have hitherto been almost inaccessible to students. The photographs are sold separately, unmounted, at one franc.

The second collection is of mediæval monuments of the Roman province and similar works in the province of Naples, especially the decorative mosaic-work applied to articles of church furniture, such as pulpits, altar-tabernacles, paschal candlesticks, sepulchral monuments and the like.

THE ART OF EMILIA.—Sig. Venturi publishes in the *Archivio Storico dell' Arte* (March-April, 1894) a study on the painters of Emilia (*L'Arte Emiliana*), dedicated to the Burlington Fine-Arts Club of London, in view of their approaching exhibit of this school in paintings drawn from the private galleries of England. It is well known to specialists that Sig. Venturi has for several years made a critical study of the school of Ferrara, the principal centre of painting in Emilia. In this article he gives us a foretaste of more extensive studies. It is recognized that before Cosmè Tura the school of Ferrara affords no clear history, and that he may be regarded as its founder. He was born in 1429 or 1430, and died in 1495. The strength and individuality of his genius are every day becoming better recognized.

His works at Ferrara, Berlin, London, Paris, Bergamo and Venice are well known. Up to the present none were known in Rome. Venturi has lately discovered five in private Roman collections, the most important being the fragment of the *ancona* of Bishop Roverella, recorded by Bigo Pittorio in his *Tumultuario*, which used to be in S. Giorgio fuori le mura at Ferrara. A part of this picture is in London, from the Frizzoni collection; the top is in the Louvre (Pietà), from the Campana collection. The part now in the Colonna gallery in Rome formerly went on the right side of the London central section. It is here finely illustrated in phototype. The other side was also formerly in the Colonna gallery, but has disappeared; the same collection has, however, two other paintings by the same master, both of which are reproduced here in half-tone.

If during late years Cosmè Tura's personality has been more clearly determined, that of Francesco del Cossa (died 1480) has been totally reconstructed, and that of Ercole Roberti (died 1496), made more characteristic by distinguishing his work from that of Ercole Grandi. These were the three principal masters of the school of Ferrara, and around them were grouped many others, several of whom ought to be brought out of their present obscurity.

Venturi seeks also to straighten out matters between the youthful Garofalo and l'Ortolano. Morelli attributed wrongly to Garofalo an entire group of paintings that should be assigned to Gio. Batt. Benvenuti, called l'Ortolano. This group Venturi enumerates, and some of the pictures are reproduced in half-tone.

Then follow notes on Battista Dossi and pictures wrongly assigned to him, and on the myriad uninteresting pupils of Lorenzo Costa and Francia.

Finally, a few words are said on the relations of the schools of Modena, Reggio and Parma, partly dependent upon Ferrara.

LEONARDO'S CODEX ATLANTICUS.—Signor Ulrico Hoepli, of Milan, has now ready for issue to subscribers the first part of the monumental facsimile edition of the Codex Atlanticus of Leonardo da Vinci, which he is publishing on behalf of the Accademia dei Lincei. The whole work will consist of about thirty-five parts, each containing forty heliotype plates, reproducing the drawings and text of this celebrated ms., together with a transcription of the text in the original orthography, and also a modernised form of it, made by Dr. Giovanni Piumati. Ultimately, there will be added a vocabulary, giving the meaning of obsolete words. The issue is limited to 280 copies, at the subscription price of £48; and it is not expected that the entire work will be completed before the end of the century. It is unnecessary to dwell upon the supreme importance of this ms., not only as an auto-

biographical document, but also for the history of science and art during the Renaissance. But it is a pleasure to draw attention to the admirable manner in which the facsimile has been executed, and to the superb character of the print and paper.—*Academy*, July 14.

LEONARDO DA VINCI AND AMBROGIO DE PREDIS.—“Few more interesting documents,” writes a correspondent, “have ever been discovered than that relating to Leonardo da Vinci’s ‘Vierge aux Rochers,’ which has lately been unearthed at Milan, and published separately by Signor Motta in the *Archivio Storico Lombardo*, and by Signor Frizzoni in the last number of the *Archivio Storico dell’ Arte*. In the first place it throws new light on the position of the Milanese painter Ambrogio Preda or de Predis, hitherto only known by his signed portraits of the Emperor Maximilian at Vienna and of a young man in the Fuller-Maitland collection, the latter of which was one of the principal objects of interest in the recent exhibition at the New Gallery. On the strength of these, several other portraits in the manner of Leonardo da Vinci had been assigned to this master by Morelli and his school. The new document exhibits Ambrogio in the light not of a mere distant imitator of Leonardo, but of his intimate associate and partner in art undertakings. It consists of a petition, signed by the two artists in common, to the Duke of Milan requesting his interposition to secure them proper treatment from the confraternity of the ‘*Scolari della Concezione*’ of St. Francis at Milan. They allege that having executed for that body an altarpiece in gilt relief-work, two pictures of angels, and one of Our Lady (the latter specially defined as the handiwork of ‘*il dicto fiorentino*,’ i. e., of Leonardo himself), they have received payment only for the amount they are actually out of pocket on the gilt altar-work, and that the said scholars are trying to defraud them in regard to the rest by valuing the picture of Our Lady at only twenty-five ducats, whereas it is worth a hundred ducats, and an offer has actually been made for it for that sum by a person from outside. They therefore petition either that a fresh valuation may be made on oath by properly qualified experts, or that they may be allowed to take possession of the painting and dispose of it to the bidder of the higher figure from outside. Now that the picture thus in dispute is Leonardo’s original ‘*Vierge aux Rochers*’ is beyond a doubt. But which version of the picture? that formerly belonging to Francis I and now in the Louvre, or that which was actually seen by Lomazzo in the chapel of the Conception at the church of San Francesco, and which afterwards passed, through the collections of Lord Lansdowne and Lord Suffolk, into the National Gallery? Those who hold on internal evidence by the originality of the Louvre version will infer from this document that the petitioners were allowed to repossess

themselves of Leonardo's work and sell it to the outside bidder (presumably from France) whom they mention, replacing it in the church of San Francesco by a pupil's copy done at the price the confraternity were willing to pay, which copy would be the version now in the National Gallery. Those, on the other part, who see the true hand of Leonardo in the London version, must conclude that the confraternity were allowed to retain Leonardo's work, presumably on payment of the full demand, and that a copy was made to be sent to France. Unluckily no answer to or judgment on the petition is preserved to decide the point. I understand that the question is to be fully discussed in an article by Dr. J. P. Richter in the forthcoming number of the *Art Journal*."—*Athenæum*, April 28.

NUMISMATIC PUBLICATIONS.—Among recent Italian numismatic books the two following are notably good: (1) NICOLÒ PAPADOPOLI, *Le monete di Venezia descritte ed illustrate*; (2) ARSENIO CRESPELLANI, *Medaglie estensi ed austro-estensi edite ed illustrate*. The work on Venetian coinage is to be complete in three volumes, of which only the first has been issued.

COSENZA.—DISCOVERY OF THE TOMB OF ISABELLA OF ARAGON.—Sig. Nic. Arnone has an interesting note on some royal tombs in the cathedral of Cosenza. That erected to Henry, son of Emperor Frederick II, in 1242, was destroyed in 1574, and must have been, from all accounts, a magnificent mausoleum. Isabella, daughter of John I of Aragon, wife of King Philippe le Hardi, of France, died at Cosenza in 1271, after the disastrous return from the crusade. Although her body was taken to France, and a monument erected to her in St. Denis, which still exists, the canons of the cathedral of Cosenza apparently erected a memorial to her, which has been re-discovered lately in the course of restorations. It is at the end of one of the side aisles, and consists of an arch enclosing three trefoil pointed arches with tracery, similar in form to the advanced windows in French gothic cathedrals of the XIII century. Under each of the three arches is a figure: in the centre the Virgin and Child, on the right King Philip, crowned and kneeling, and on the left a similar figure of Queen Isabella. The material is tufa, and there are still traces of the gilding [and probably painting]. Sig. Arnone quite correctly judges the sculpture to be by a French artist. Not only is this certainly the case, but the style clearly shows him to have belonged to the Ile de France, and to stand related to the earlier sculptors of Notre Dame. The figure of the Virgin, for instance, is but a later example of the fine statue of the Virgin against the middle pier of the main portal of Notre Dame. Sig. Arnone compares also the composition to that of the group in the tympanum of the *Porte Rouge*, where Louis IX and his wife Marguerite are repre-

sented kneeling in the same way before the figure of the Virgin bearing the Child.

MONZA.—CHALICE OF GIAN GALEAZZO VISCONTI.—Mgr. Barbier de Montault publishes in the *Arch. Stor. dell' Arte* (March-Apr., 1894) the large silver chalice of the treasury of Monza. It is partly gilt, and, while in its form it is monumental and seems almost to have been designed by an architect, its chief beauty lies in its details. The foot represents a rose and is divided into six lobes, each one being sub-divided into others. It is decorated with the elaborate arms of the Visconti, which are demonstrated to be those of Gian Galeazzo Visconti and to contain a motto, A BON DROIT, which he did not adopt until 1394, and the imperial eagle, not granted him until 1395. Visconti died in 1402. The chalice is decorated with many figures and statuettes.

NAPLES.—MONUMENTAL PLAN OF THE CITY IN THE XI CENTURY.—Sig. B. CAPASSO has finished the publication in the *Archivio Storico per le provincie Napoletane* (1893) of a very important monograph on mediæval Naples. It is entitled *Piante della città di Napoli nel secolo XI*, and treats in detail of the topography and monuments of the city during the XI century under the following heads: (1) walls, towers and gates; (2) regions, streets and alleys; (3) cathedral, major (parochial) basilicas, diaconal churches; (4) minor churches, collegiate and hermit churches, oratories and chapels; (5) monasteries of men and women; (6) public works, public civil constructions and private houses; (7) the suburbs; (8) conclusion. The circuit of Naples in the XI and XII centuries was found to be about two miles and a third, or 4,500 metres. How rich the city and its neighborhood—which is included in the study—were in early-Christian and early-mediæval monuments can hardly be imagined without a perusal of this masterly monograph, which is a treasure-house of material for the topographer and archæologist. The author is not only familiar with printed sources but has an unrivalled acquaintance with inedited documents bearing on the question. As Naples occupied so interesting a position with its semi-Byzantine civilization, the questions involved in its early mediæval history are unusually worthy of study. For details we can do nothing but refer the reader to the *Archivio*, expressing the hope that the author may issue his monograph separately. As a companion to this work should be consulted an historical study published contemporaneously in the same review by M. SCHIPA. It is entitled *Il Ducato di Napoli* and traces the history of the city principally during the time illustrated by the monuments mentioned in Capasso's work, namely, the time that elapsed after the conquest by Belisarius and the subsequent establishment of a Byzantine duke at Naples which remained, with intervals of independence, under the suzerainty of Byzantium up to the XI century.

Capasso is the director of the *Archivio di Stato* of Naples, and his familiarity with the documents is thus explained. He has lately published a great collection of documents relating to the early mediæval history of Naples, during the time of the duchy, under the title: *Monumenta ad Neapolitani ducatus historiam pertinentia*. This monumental work is in three volumes. It is upon this work that Schipa mainly bases his historic reconstruction of this period referred to above.

COINAGE OF CHARLES III OF DURAZZO.—It was until quite recently thought that Charles III of Durazzo did not coin money during his very short reign, owing perhaps to the extremely generous output by the Neapolitan mint, under Charles II and Robert, of *gigliati* and *robertini*. The discovery by Carpentin of a little denarius of Charles III seemed not to invalidate the thesis, as it was quite probable that such small coinage should have been issued for public convenience, while no addition to the silver coinage was required.

Only lately, however, in 1893, there were found two specimens of a *gigliato* coined by Charles III. The city of Solmona coined several types, under Charles III, of *bolognini* and *tornesi*. In the registers of Charles III there are two documents concerning the Neapolitan mint. The first is of 1382, naming as *maestro di prova* for the metals of the mint Maestro Antonio de Raymondo. The second document, of 1383, repeats two ordinances of Robert, of 1321 and 1326, by which the privileges are confirmed that had been accorded to the coiners of Brindisi and Messina by Frederick II and by other sovereigns to those of Naples. A list is given of the officers of the mint and of the artists who worked in it in 1321, and of those who were added in 1326 on account of the increased emission of *gigliati*; and, finally, the list of the artists and workmen of the Neapolitan mint who worked in 1383. Here we find the name of the artist who made the moulds, Mo. Ignazio Vespulo de Pino, and that of the Director of the Mint, Mo. Turino Biorelli.—A. SAMBON in *Arch. Stor. per le prov. Napoletane*, 1893, 2.

PARENZO.—THE CATHEDRAL AND ITS MOSAICS.—Sig. Giacomo Boni gives us a remarkably interesting study on *The cathedral of Parenzo and its mosaics* in the last number of the *Archivio Storico dell' Arte* (March-Apr., 1894). The entire structure with its decoration is a work of the sixth century, and bears the strongest analogy to the contemporary monuments of Ravenna: is in fact by the same school. "Inferior to the churches of Ravenna in size alone, the cathedral of Parenzo equals them in beauty of execution, and surpasses them in the completeness of its plan with its atrium and baptistery."

Among interesting observations by Boni are these. He denies that the stuccoes on the northern arches are of the Renaissance, showing by other examples that they belong to the original decoration of the

sixth century. Fortunately they have not been torn off like those at S. Ambrogio, Milan, in the ignorant zeal to put the building in its *original* condition. The capitals at Parenzo are of the following types: (I) lotus leaved=S. Vitale, Ravenna; (II) Byzantine composite; (III) twisted basket-work; (IV) with animals in place of volutes; (V) with birds in place of volutes; (VI) basket-shaped=S. Sophia, Const.; (VII) variation on II. These types are excellently reproduced here in half-tone illustrations. In the apse the revetment of marbles and porphyry reminds of that of S. Sabina at Rome, and more distantly, in some parts, of that of S. Sophia at Constantinople. It is composed of red porphyry, green serpentine, opaque enamel, white onyx, terracotta of various colors and mother-of-pearl which is used not only in the mosaics but in disks formed of entire iridescent shells. The monogram of Euphrasios shows all this decoration to be contemporary with the building of the church under Justinian.

The figured mosaics are all the more important that they have hitherto escaped the restorations that have disfigured or practically destroyed the majority of Christian mosaics. Since Jackson described them, ten years ago, many discoveries have been made in the cathedral, among them being the mosaics of the triumphal arch, consisting of Christ and the twelve apostles, which were discovered in 1891. Boni gives good half-tones of a number of these mosaics, and shows a thorough appreciation of the peculiar beauties and harmonies of Christian mosaics when left in their original condition. He makes a strong and well-founded protest against modern ruthless restoration of so mechanical a description, which changes the purposely irregular arrangement of cubes into one of mathematical regularity, and gives us a crude and staring parody of the original. He studies the question of the juxtaposition of colors as illustrated by mosaics, and closes by making the suggestion that in future restorations the same method be followed as in S. Giusto at Trieste, where the face of the mosaics having been covered with sixteen thicknesses of paper, glued together, a wooden frame was constructed to give it solidity; then the wall to which the mosaics were attached was demolished, the bed of the mosaics scraped off, a bed of Portland cement laid in its place and on this the vault was reconstructed. When the mosaic was uncovered it was found that not a single cube had moved.

How lamentable it is to pass in review the works of art that might have been saved had this simple process been everywhere employed. S. Mark's at Venice, S. John Lateran at Rome and many others would still have retained their vanished charm.

PAVIA.—CONSUL CYRUS.—An inscription found among the material of the church of S. Maria del Popolo is important on account of its mention of the consul Cyrus. It reads, as restored by Barnabei:

[hic r]equiescit in pac[e]

[qui vixit in] seculum [ann . . .

. s aug. Cyro cons(ule)

It is the first time that the mention of this Consul, who held the fasces alone in the year 441, has been found on an inscription. His promulgation in the East was not known in the West until very late in the year, and the inscriptions thus far known bear the date *p(ost) e(onsulatum) Valentiniani v et Anatolii*.—*Not. d. Scavi*, 1893, p. 348.

PISA.—MONUMENT OF EMPEROR HENRY VII.—The well-known monument of Henry VII in the Campo Santo at Pisa forms the subject of a monograph by G. Trenta (*cf. Riv. Stor. Ital.*, Apr.-June, 1894). He shows how it was first placed in the cathedral, how its position there was changed in 1494, when its base was added, and how a second change of position was made in 1727. On the occasion of the restorations in the cathedral in 1829, the monument was transferred to the Campo Santo. Among the documents published by Trenta at the close of his pamphlet is especially to be noticed the note of expenses made in 1315 by the Pisans to pay Maestro Tino, the sculptor of the monument.

ROME.—THE CATACOMBS OF THE SALARIA VETUS AND THE CEMETERY OF S. HERMES.—Comm. de Rossi has given us in the last number of his *Bullettino* one of the delightful monographs that are always welcome from his master hand. It is entitled *La cripta dei SS. Proto e Giacinto nel cimitero di S. Ermete presso la Salaria vetere*, but although the crypt of Protus and Hyacinthus is made the centre of the study, the cemetery of S. Hermes, of which it forms a part, is studied, and the writer begins with a notice of the other various early Christian cemeteries along the Via Salaria Vetus.

In 1893 the Commission of Sacred Archæology decided to bring to light once more the historic crypt of the famous martyrs Protus and Hyacinthus in the cemetery of S. Hermes. It had been discovered by Padre Marchi in 1845, and then, after the barbarous manner of that time, had been filled in again with earth.

The vie Salaria Vetus and Pinciana.—The Christian cemeteries of the Salaria Vetus have never been treated. On pl. I-II, accompanying this monograph, is given the plan of the cemeterial zone of the Salaria Vetus and surrounding roads, which was prepared by De Rossi between 1886 and 1888, when the excavations between the Salarian and Pincian gates led to the discovery of a piece of road with tombs of the late Republican and early Imperial periods. This section of road

was evidently coördinate with the ancient road that came out of the old Porta Collina, on the site of the present Palazzo delle Finanze, and formed the beginning of the Salaria. Aurelian's wall interrupted and suppressed this beginning: in place of it was substituted the section issuing from the Porta Salaria, called Salaria Nova, and that from the Porta called Pinciana from its hill. A special plan of it has been published by Marucchi and Tomassetti. De Rossi's plan has many additional data.

The road now to be described is called in some documents Via Pinciana. The name is ancient. It was applied from the beginning only to that section of the road from the rise at *Capo le case* to the walls, and thence to the double branch of the Salaria: *ubi pervenit ad Salarium nomen perdit* (cod. *Malmesbur.*), that is to say, when it reaches the bifurcation now called *del Leoncino*, whence the roads proceed, on the right to the cemetery of Felicitas, on the left to that of Hermes. It thus joins the *Salaria Nova* on the right and the *Vetus* on the left.

Here is the cemetery of Hermes. This cemetery is always designated in the best ancient documents by the name either of Basilla or of Hermes, *cæmeterium Basillæ vel Hermetis via Salaria vetere*. This is good proof of the classic use of the name *Salaria vetus* denied by Nibby. Only in the VIII cent. is it called *via Pincia*.

Christian cemeteries of the Salaria Vetus.—On the first section of the *Via Pinciana* from the gate to the bifurcation called *del Leoncino* no indication of any Christian catacomb has ever appeared. Any Christian inscriptions found here must have been transported. Hardly do we reach this point when the necropoli begin. Here was a catacomb, mentioned by Boldetti and Giorgi (ms. Casan. XI), which extended from the borders of the Villa Nari on the left of the *Salaria Nova* under the vineyard that extends on both sides of the fork. The name and history of this catacomb are equally unknown. Passing onward to the fork called *delle Tre Madonne* along the *Salaria Vetus*, we find on the right a catacomb which Comm. de Rossi has proved (*Bull.* 1865, p. 1) to be the catacomb of S. Pamphilus. He explored a small section of it in 1865, but Bosio had seen more of it. Who were S. Pamphilus and the other martyrs of this catacomb named in the itineraries, is not known. Between the two forks should probably be placed a nameless and unknown catacomb mentioned in the Cod. Barb. xxx, 91, f. 36. The alley of S. Philip on the right must have been so named from Philip son of Felicitas who was buried along the *Salaria Nova* in the catacomb of Priscilla.

Taking the other branch of the *Salaria Vetus* at the fork, along the right-hand side of the road, there should be the *cæmeterium ad Septem palumbas ad caput S. Joannis in clivum Cucumeris*. In this famous

catacomb, which is called *in clivo Cucumeris* or *ad vii palumbas*, a group of famous martyrs was buried. Comm. de Rossi has attempted to find it, but in vain. When, on opening the new road called *dei Parioli*, an entrance was found leading to subterranean galleries with *loculi*, of the usual Christian type, it was hoped to be a part of it: but it proved to be apparently a small private catacomb, immediately opposite that of S. Hermes, perhaps belonging to some funeral association.

Catacomb of S. Hermes.—Quite a distance before reaching the catacomb called of Hermes, Basilla, Protus and Hyacinthus, by the *Itinerarium Einsildense*, on the left side of the Salaria Vetus, there must have existed a catacomb, for here were found at the close of the last century many Christian cemeterial inscriptions, one of which bore the date 298 A. D. Comm. de Rossi cannot say whether this is a continuation of those of Hermes or Pamphilus, or whether it is distinct from these and bears a name unknown to us. He has therefore marked it on his plan *coemeterium*. . . ?

Bosio recognized the catacomb of Hermes and Basilla in the present vineyard of the German College. This attribution was confirmed by an inscription with the letters HERME. . . on a fragment of epistyle found by Comm. de Rossi and recognized as being in the inscriptional style of Pope Damasus; also confirmed by an epitaph invoking BEATA BASILLA. For many centuries it was confused on the one hand with the catacomb of Priscilla and on the other with that *ad clivum Cucumeris*.

The origin of the catacomb is obscure. In the apocryphal Acts of Pope S. Alexander, Hermes is called prefect of Rome under Emperor Hadrian. The inscriptions found in the catacomb show that it is as early as the second century, perhaps even as early as about the time of Hadrian. Among the early inscriptions are the following:

XVIII KAL AVRELIVS PRIMVS
SEPT . AVG LIB . TABVL .
ET COCCEIA . ATHENAIS
FILIAE FECERVNT
AVRELIAE PROCOPENI
QVE BIXIT . ANN . XIII . MESIBVS III
DIEBVS . XIII . PAX . TECV .

The name of the wife of this Aurelius Primus carries the inscription back to about the time of Nerva, and the language is in harmony with this early date, especially the apostolic formula *pax tecum* at the close; and it is likely that this Aurelius was a freedman of Marcus Aurelius rather than of Caracalla or any other of the Augusti Aurelii of the third century. Of a still earlier date, probably in the first half of the second century, is an inscription to Tryphonilla. Of remarkable interest is a third inscription, now in the Kircherian Museum, found

above the catacomb. It was in the form of a stele, and probably belonged to the cemetery above ground, and the inscription alludes to the *fratres* who probably owned the land as an association. The *titulus* was erected by *Alexander duorum Augustorum servus* to his son Marcus *Caputafricesi qui deputabatur inter bestitores*, that is, to his son who was educated in the *Caput Africae*, and hence destined to be an imperial *vestitor*. The well-known blasphemous crucifixion scratched on the walls of the *paedagogium* of the imperial palace shows that there were among the youth educated at the palace some who were held up to scorn as Christians. The date of this inscription is regarded by Prof. Gatti as being the reigns of Marcus Aurelius and Lucius Verus. A second inscription, surmounted by a relief of the second or third century of the Good Shepherd between two sheep, must also have come from the cemetery above ground. The inscriptions, therefore, prove the early existence here of a cemetery both above and below ground.

Of the many inscriptions found at different times in the galleries of the catacomb many have the nomenclature and formulas belonging to the earliest families of catacomb inscriptions. Hence it was not surprising that during the late investigations Comm. de Rossi found traces of inscriptions painted with minium on tiles, like those in the catacomb of Priscilla. De Rossi says: "There are many arguments which combine to prove to me that there existed also in S. Hermes groups of Christian inscriptions worthy of being placed, if not by the side of, at least close after those of the cemetery of Priscilla."

"The centre from which the cemetery of S. Hermes radiated its galleries in various directions is an ample basilica on the level of the second floor of the subterranean network of galleries. The basilica is composed of a single nave which the *Liber Pontificalis* (ed. Duchesne, I, p. 509) calls *mirae magnitudinis*. It is not, like others of the same kind, one of the Christian churches built in the time of peace and triumph, but is contemporary with the very beginnings of the catacomb. It is even earlier, as Marchi has proved, for it appears to be the bath of a villa adapted to its new use by its owner who became a Christian. In it probably rested the first eponym of the site, the martyr Hermes. The itineraries are not clear on this point: I understand them to mean that Hermes and Basilla were laid in two different places in the same subterranean basilica. Behind its apse, in 1876, Prof. Mariano Armellini discovered access to a vast quarter of the cemetery containing several painted *cubicula*, one of which has now been disinterred and appears to belong to the third century. Here also were found many epitaphs of the same period worded in beautiful and interesting epigraphic formulas."

The details of these discoveries—which will be referred to in Prof. Marucchi's communication immediately following—are passed over by De Rossi in order that he may confine himself to the crypt of SS. Protus and Hyacinthus and the discoveries made there during 1893.

The ancient stairs leading down to the crypt of SS. Protus and Hyacinthus.—The discovery of the historic crypt in which the tombs of these two famous martyrs were venerated for centuries, and especially the finding there of the *loculus*, still untouched, of the martyr Hyacinthus with its primitive inscription still *in situ* and with the ashes of his bones, was the greatest archaeological revelation made in 1845 by Padre Marchi. It may be regarded as a unique fact, in view of the fame of the saint, and the transfers to the city-churches of all important relics of saints during the VIII and IX centuries.

The first step toward reopening this crypt was to find and clear the ancient stairs built in the times of peace to facilitate access, and concerning which information was given by a poem written by a priest named Theodore. At the bottom of the stairs there appeared faint traces of a painting of about the VI cent., representing the Saviour standing between two young saints—evidently the two saints to which the crypt was sacred.

One of the ancient walls of the stairs was anciently restored, covering up an inscribed marble slab closing a tomb bearing the consular date of the year 400. It is a metrical inscription composed of hemistiches taken from other metrical inscriptions, a pot-pourri in the style of those of Commodianus, regardless of the rules of prosody. The eulogy is that of a man named Felix, deceased at the age of 64, among whose praiseworthy actions was the renovation of the sanctuary. This corresponds exactly with the period of Pope Damasus, who flourished from 366 to 384, during the early and middle manhood of this Felix. As Theodore coöperated with Damasus in building the stairs, so Felix coöperated in renovating the oratory above ground and the subterranean crypt. Considering its historic interest, we here reproduce the inscription as emended by Comm. De Rossi:

Felix digna tulit parum (*senex*) munera C(h)risti
 Et suo con(*ten*)tus habuit per saecula nomen
 Laetificum renovans p(*rima ab o*)rigine templum
 Infandaqu(*e fu*)giens istius iurgia saeculi
 Certum est in regn(o *caelest*)i (p)erque amoena virecta
 Istum cum electis erit habitum praemia digna
 Semper et adsiduæ benedici pro munere tali
 Qui vixit an. LXXIII m. VIII. d. XXIII dep. VI. idus. Jan.
 Fl. Stilicone. cons(ule)

Among the rubbish filling the stairs were found many fragments of sepulchral inscriptions, the greater number belonging to the necropolis above ground, as is shown by the size and weight of the stones and their paleography, which is that of the period when the use of open-air cemeteries prevailed. There are remains of consular dates of the iv and v centuries, and in one case a *lector tituli* is mentioned. Some fine fragments were found of the eulogy of Protus and Hyacinthus by Pope Damasus, the text of which is known from the codex Einsildense and from half of the original transferred to the church of SS. Quattro Coronati during the Middle Ages.

Besides the stairs built by Theodore in the time of Damasus, leading immediately down to the crypt of Protus and Hyacinthus, another narrow one, less near to the crypt, was seen by Padre Marchi and has now been reopened. At its foot is the *arcosolium* decorated with biblical scenes in mosaic, which Marchi and many after him have regarded as a work added for the decoration of the crypt, perhaps by Pope Symmachus at the close of the fifth century. But the recent investigations have shown that these mosaics belong to the original and special decoration of the private tomb of one who obtained the privilege of being buried near the martyrs *sociatus sanctis*.

Crypt of SS. Protus and Hyacinthus.—Padre Marchi carefully described and illustrated the crypt of the martyrs Protus and Hyacinthus. But the inscription being removed from the *loculus* and the pavement above being destroyed the historic crypt soon went to ruin. The question arises, in view of the re-discovery of this crypt, how it was that martyrs so famous, among the foremost on the Roman calendar, should have received so poor, so mean a burial. The reason for not removing the remains to a more worthy resting-place is easy to see in the indisposition to disturb the ashes of the saints. There remains to be explained the original selection of the humble place. Comm. de Rossi believes he has found a clue to this in some mss. of the Hieronymian Martyrology which connect the two saints with Eugenia and Basilla, who were martyred under Valerian according to tradition. Now, Valerian was the first to forbid to the Christians the entrance to the Catacombs under pain of death. Under the stress of such adverse circumstances it is easy to fancy in what haste the bodies may have been buried without time for the selection of a suitable location.

Historical Inscription of the time of Damasus.—The excavations at the foot of the stairs leading down to the crypt of the martyrs Protus and Hyacinthus have been crowned by the discovery of an important historic monument. Within a *loculus* were found sixteen fragments of an inscription in Philocalian characters which form the second part of the hesartich of the priest Theodore, by whom was built the stair-

case which gave direct access to the tomb of the saints, as stated above. Its text was already known as the Vatican Palatine codex 833. The fragments found give approximately the last half of every line. Taken together, the codex and the remaining part of the original give the following text:

*aspice descensum cernes MIRABILE FACTUM P
sanctorum monumenta VIDES patefacta sepulchris
martyris hic proli tumulus IACET ADQVE YACHINTI
quem cum iamdadum teGERET MONS TERRA CALIGO
hoc Theodorus opus construxit PRESEYTER INSTANS
ut domini plebem opera MAIORA TENERENT ♡ P*

Before this discovery the age of the poem and of Theodore were not really known, although the style led generally to its attribution to Pope Damasus. It is now seen that, notwithstanding the errors in prosody in the last line, the form of the letters proves the poem to proceed from the Philocalian school which was employed by Damasus: hence Theodore was contemporary with Damasus and his works undertaken in honor of Protus and Hyacinthus.

Certain imperfections, however, in the execution of the letters show that they are not by the hand of the famous Furius Dionysius Philocalus himself, but rather by the hand of an apprentice, under the direction, probably, of the priest Theodore. This inscription, therefore, does not quite come into the class of the inscriptions of Damasus.—*Bull. Arch. Crist.*, 1894, 1-2.

Summary of the above discoveries by Prof. Marucchi.—Comm. De Rossi did not, in the article summarized above, dwell on the discoveries made in the cemetery of S. Hermes outside of the crypt of Protus and Hyacinthus and its staircase. Prof. Orazio Marucchi has published a short account which is in some ways a brief supplement to this part of the work.

In the catacomb of S. Hermes, one of the most ancient and least explored of Rome, situated about two miles outside the Porta Pinciana on the old Via Salaria, the subterranean basilica has been cleared out, and some funereal galleries brought to light. This catacomb had its origin in the suburban sepulture of the martyr Hermes, who was put to death in the persecution under Hadrian, and it grew to a considerable extent between the second and third centuries. The researches of this year have revealed, to the right of the apsis of the basilica, a chamber of rectangular form more ancient in construction than the church itself, with a marble tessellated pavement. In front of the back wall are seen the remains of a tomb which must have been adorned with marbles, above which would seem to have been an altar. These religious remains, taken together with their nearness to the

basilica, which latter appears to have been built as an adjunct or enlargement to the primitive crypt, would incline to the belief that we have here the tomb of the martyr, hitherto sought in vain. During the last months the Roman archæologists have brought to light a flight of steps built by Pope Damasus in order to give access to the crypts of Saints Protus and Hyacinthus. Over the door of one crypt a fresco painting has been discovered, dating from the sixth century, and representing the two martyrs, one of whom bears his name written anorthographically thus, *Iaquintus*. At the foot of the steps the workmen have completely cleared out the small room which contained their tombs, which latter date probably from the time of Valerian. Amongst the rubbish brought out were some fragments of the poem inscribed on marble by the Presbyter Theodorus, when the ancient repairs were carried out. From another fragmentary inscription, found at the same time as the preceding, we learn that the works of Damasus and of Theodorus were continued by a certain Felix, who, in the area above the crypt, built a sacred edifice now no longer extant.

In another part of the same catacomb a sepulchral chamber was disinterred which revealed paintings of the third century. At the far end of the room is seen a representation of the gospel story of the multiplication of loaves—on the ceiling the sacrifice of Abraham, the Hebrew youths in the furnace of Babylon, and Daniel in the lions' den; while above the entrance is painted a woman veiled and praying, symbolizing the soul of one of the persons buried there. In one of the pictures are seen three fishes, in allusion to the well-known monogram of Christ; but they are grouped in a way not hitherto observed in other ancient Christian pictures. The galleries of this catacomb discovered towards the end of this campaign belong to the third and fourth centuries, and have furnished a large number of inscriptions.—*Athenæum*, July 14.

CATACOMB OF S. PRISCILLA.—Some new and interesting mural paintings have been found in the so-called Greek chapel of the catacomb of St. Priscilla, which is of much more ancient date than that of St. Hermes, and is noted for the discovery in it a few years ago of the tomb of Acilius Glabrio, Consul and martyr of the first century. The paintings now brought to light by the researches of Mgr. Wilpert belong to the first part of the second century, and are hence contemporary with the frescoes representing the story of Susannah found formerly in the same place. They consist of two scenes already painted in the catacombs of St. Hermes and elsewhere, namely, the sacrifice of Abraham, and Daniel in the lions' den, together with the resurrection of Lazarus, and an *agape* or banquet of the first Chris-

tians, which, owing to its mode of treatment, is suggestive of interesting questions.—MARUCCHI, in *Athenæum*, July 14.

TWO FAMOUS VIRGIN MARTYRS ON A SLAB FROM TERNI.—Comm. De Rossi writes: In the *Römische Quartalschrift* of Mgr. de Waal, 1893, No. 3, Mgr. Wilpert publishes and illustrates a Christian monument of great importance from Terni, which has been purchased by the Museum of the German Campo Santo, at the Vatican. It is a simple oblong slab of marble imitating the front of a sarcophagus carved in relief. In the centre under a pavilion is inscribed the sepulchral inscription of a little girl named Castula, who lived, it would appear, for only one year, though the editor prefers to read 5-ANN(OR)V. On the two sides of the inscription are figured in relief two maidens in the attitude of oranti. One is designated by the name AGAPE, the other by the name DOMNINA. The learned editor believes them to be two sisters or other relatives of the girl Castula, who had preceded her into the second life. These two names were read in the XVII cent. by Mazzancolli and Cittadini. . . In the *Bullettino* of 1871, p. 121, I lamented the loss of this important monument: and now it is not only found, but proves to be far more important than at first appeared. For it is a historic monument alluding to two illustrious martyrs of the Interamnan church. In the famous Hieronymian martyrology on Feb. 15, we read in all the larger copies and in some of the minor ones: *Interamnanæ natale sanctæ Agapæ virginis*. Can this virgin be the *orante* represented on the Terni slab? Most assuredly, for in the same martyrology on the *VIII. Kal Maias* (April 14) among the martyrs of Terni, according to the excellent Berne copy we read: *Domninæ virginis cum suis virginibus simul coronatæ*. In other manuscripts the reading is *Dominae* and in other martyrologies *Domnae*. The Terni monument shows that the real reading is that of the Berne codex. The comparison of the slab with the above martyrologies makes it certain that the two praying figures, *Agape* and *Domnina*, represented on the sculpture from Terni, are the two famous martyrs of the Hieronymian martyrology. They are thus carved in relief, on either side of the inscription of *Castula* in order to attest the certainty felt by the survivors, that the innocent infant would be received by the two virgin martyrs in the eternal tabernacles symbolized by the pavilion and arches on the relief. Mgr. Wilpert justly remarks that the monogram of Constantinian form, the simple form of the epitaph and the style of the sculpture, are indications of the first rather than the last decades of the fourth century. The relief, therefore, is a noteworthy proof of the celebrity and cult of these virgin saints and martyrs in the cemetery of S. Valentino near Terni as early as the first years of the peace and triumph of the Christian Church.—*Bull. Arch. Crist.*, s. v; a. IV, 1-2.

VENICE.—PLAQUETTES IN THE MUSEO CORRER.—Emil Jacobsen describes plaquettes in the Museo Correr at Venice in the *Repertorium für Kunstwissenschaft* (1893, p. 54). Toward the end of the last century the Venetian nobleman Correr brought together a heterogeneous and valuable collection of works of art, especially works of Venetian origin, which he presented to his native city. The collection was increased after his death, and in 1880 was newly arranged and opened to the public as the Museo Civico e Raccolta Correr, in the old Fondaco dei Turchi, restored and rebuilt for the purpose. Among the important treasures of the collection are the bronze plaquettes. There is no proper catalogue of them, and Jacobsen gives a description of them, omitting those described in Bode's and v. Tschudi's Berlin catalogue, and in Molinier's "Les Plaquettes." He gives a description, with some discussion, of eleven imitations of antiques, two works of the Byzantine school, eighty-five of the Italian school, five of the French, fourteen of the German and one of the Netherland school. He also describes an etched iron plaque with family portraits of the Augsburg armourer, Anton Peffenhauser. The inscriptions of this plaque are published.

DESTRUCTION OF CHURCHES RECORDED IN THE XII AND XIII CENTURIES.—A Venetian MS. containing the *Regula S. Benedicti*, written in 1157, in the monastery of S. Gregorio, Venice, and a Calendar and Obituary of the same monastery, written in the XIV, contains also some interesting notes in a hand of the XIII century, founded evidently on XII century documents. As they are of interest for the vicissitudes of Venetian architecture in the Middle Ages, they are here in part reprinted from the *Nuovo Archivio Veneto* (1894, pp. 6-8):

(1106, Jan. 28.) *Anno Domini MC quinto die quarto exeunte ianuarii ignis exiuit de domo Henrici Çeni et combuzit VI ecclesias, scilicet sanctorum apostolorum, sancti Cassiani, sancte Marie matris domini, sancte Agathe, sancti Augustini et S. Stephani confessoris cum omnibus conuinciniis eorum.*

(1106, Apr. 5.) *Post sexagesimo octauo die MCVI die V intrante Aprili ignis exiuit de domo Caucaniri Dilmino, que combuzit XXIII ecclesias cum omnibus adiacentibus casis, scilicet ecclesiam et monasterium S. Laurentii, S. Eucharie cum cenobis, ecclesiam S. Seueri, S. Proculi, S. Marie formose, S. Scolastice, S. Marci cum palacio ducis, S. Bassi, S. Iuliani, S. Geminiani, S. Moisi, S. Mariæ iubanice, S. Angeli. S. Mauricii, S. Vital(is), S. Samuelis, S. Gregorii, S. Agnetis, S. Geruasii, S. Barnabe, S. Basilii, S. Raphaelis, S. Nicolai de dorso duro.*

(1116, Jan. 3.) *Anno domini MC sexto decimo die tercio ianuarii terre motus fuit ualde terribilis, unde multe ecclesie cum campanilibus corruerunt, et innumerabiles domus, turres et castra atque antiqua et noua edificia et montes cum rupibus corruerunt et ceciderunt, et terra in multis locis aperta*

fuit, aquas sulfureas emanabat; et in illa die combusta fuit ecclesia S. Herma- core et S. Johannis decolati cum multis casis.

(1149, Oct.) *Anno domini MCXLIX mense octubri ignis exiit de con- finio S. Marie matris domini et combuxit XIII ecclesias cum ecclesia S. Raphaelis.*

(1167, Dec. 15.) *Anno domini MCLXVII diē XV decembri intran(te) exiit ignis de solarío S. Salvatoris et combuxit ecclesiam S. Luce, S. Pater- niani, S. Benedicti, S. Gabrielis, S. Samuelis, S. Barnabe et S. Basili cum suis conuiciniis.*

Then follow some entries during 1177, especially relating to the meeting of Pope Alexander and Emperor Frederick Barbarossa, and speaking also of damage done by an inundation which made all the inhabitants take to their boats: *Fuit quodam tempore maxima aqua per medium noctem et integram diem, ita quod nullus poterat stare in domibus; unde maximum damnum de rebus abuerunt, et multi pueri, iuvenes et homi- nibus in aqua perierunt.*

After a long interval comes another item in different ink:

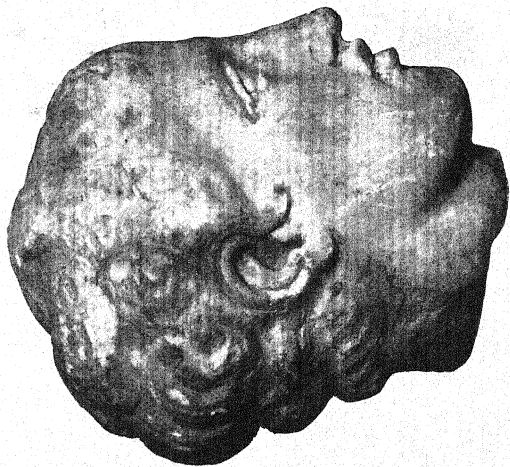
(1220, Dec. 25.) *Anno domini MCCXX, in die natalis Domini mag- nus terre motus fuit unde ecclesia S. Gregorii de Veneciis pro tere motu cecidit.*

Then, in another hand:

(1284, Dec. 22.) *Anno domini MCCLXXXIII die ueneris decimo exeunte decembri fuit maxima aqua, ita quod nulus proterat stare in terra nisi super sufitas et solaria; et multi muri ceciderunt, et maximum damnum de rebus abuerunt, et aliqui abierunt; et hoc fuit a media nocte usque ad mediam terciam.*

A. L. FROTHINGHAM, JR.

Princeton, N. J., August 1, 1894.



METOPÉ HEAD FROM THE ARGIVE HERÆUM.

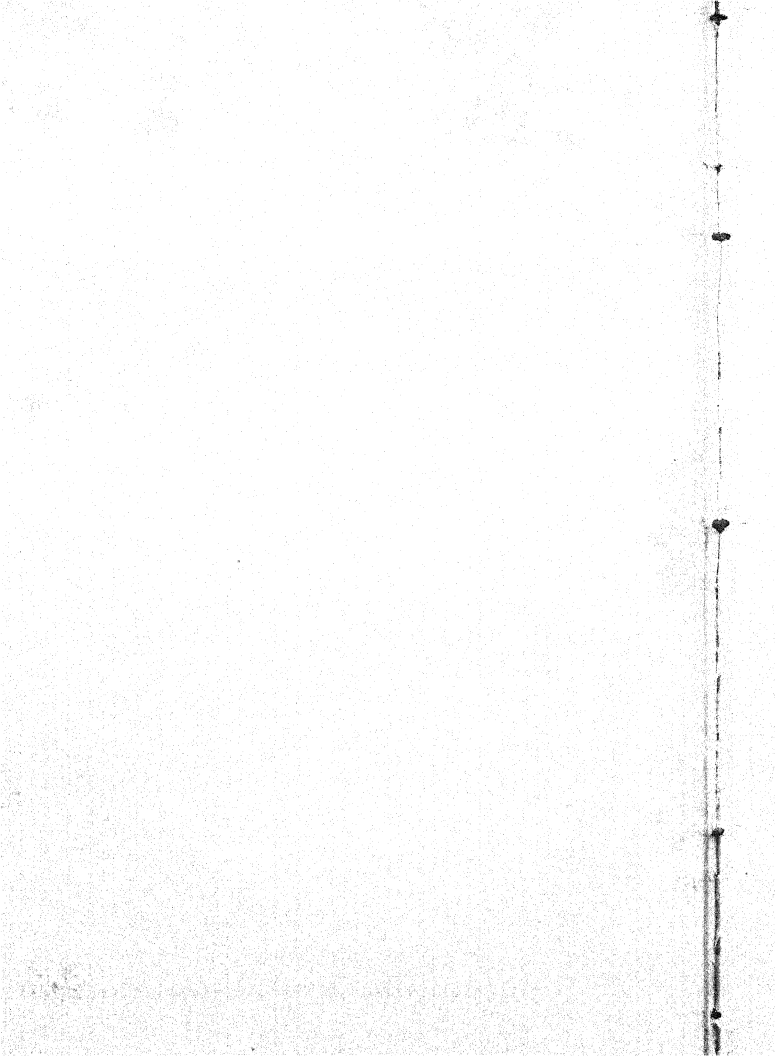




Fig. 1.

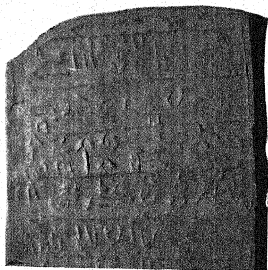
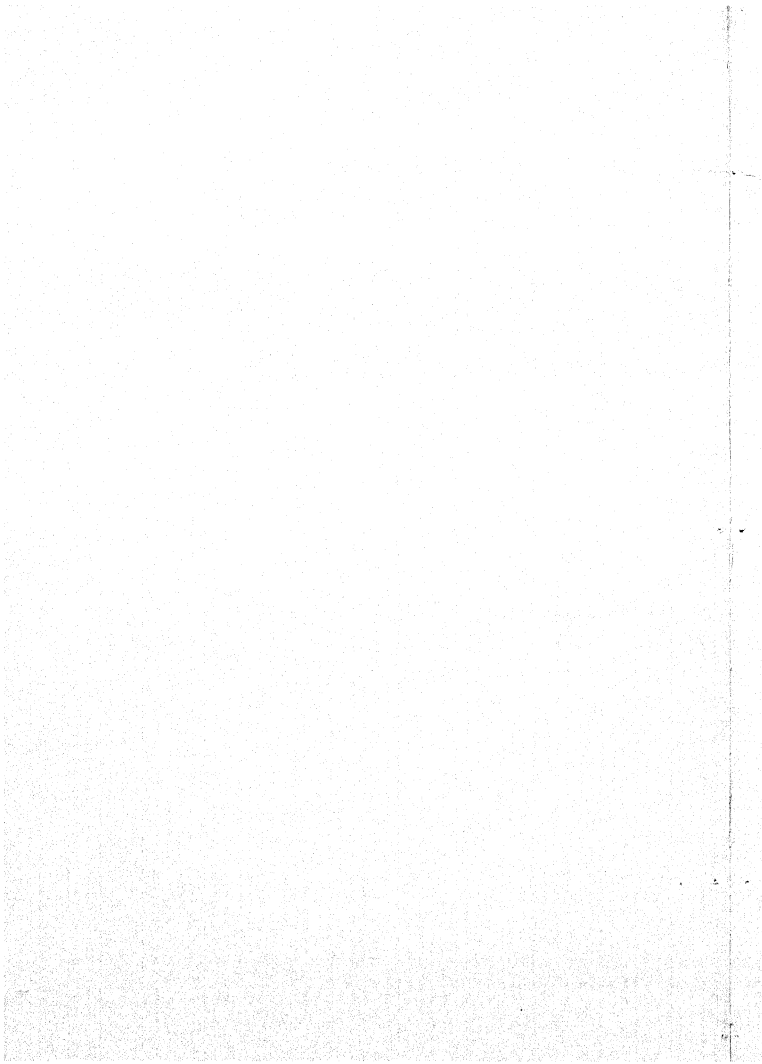


Fig. 2.

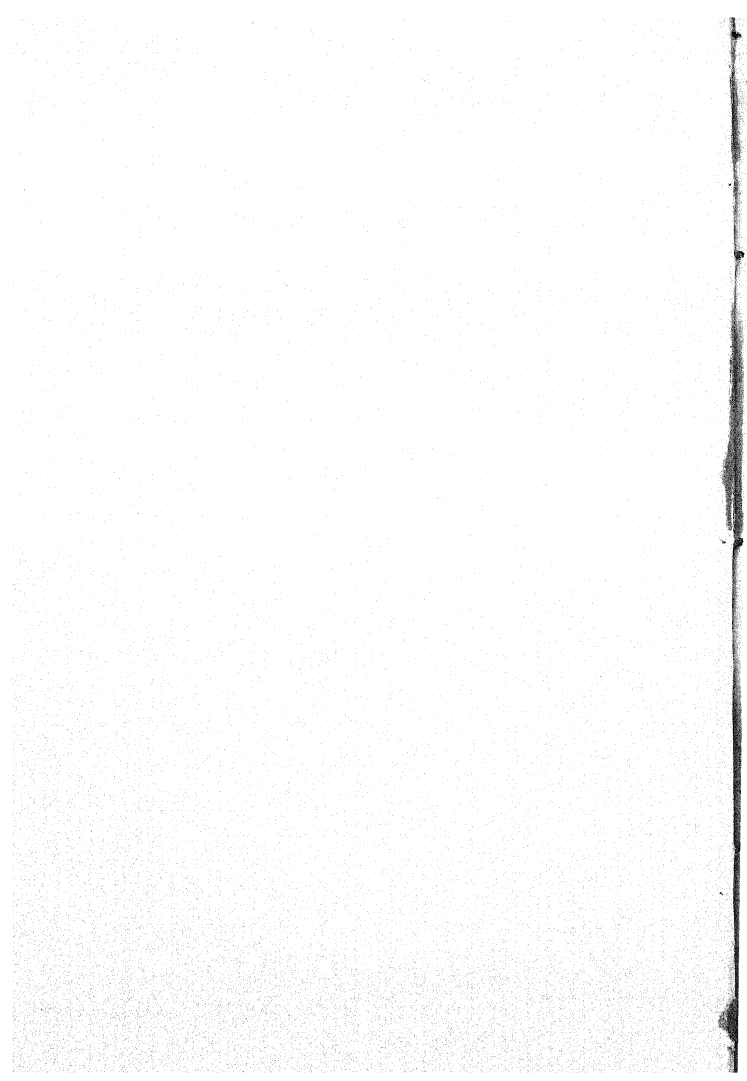


Fig. 8.





HEINRICH VON BRUNN.



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PAPERS OF THE AMERICAN SCHOOL OF CLASSICAL
STUDIES AT ATHENS.

A SILVER "MIRROR-CASE," INLAID WITH GOLD, IN
THE NATIONAL MUSEUM OF ATHENS.

[PLATE XVII.]

In the collection of the Archæological Society of Athens is an object which, owing to its peculiar character and to the beauty of its execution, deserves special attention. It is called a mirror-case, and it came to the society from the former collection of the Ministry. The place where it was found is not known, but Mr. Tzountas tells me that he believes it to have come from Kephissia.

That it is a mirror-case or the back of a mirror is, I think, by no means certain, for, owing to its dilapidated condition, a positive determination of the use for which it was intended is impossible. It has been suggested that it formed the cover of a vase; this is, however, unlikely, for there is a top and a bottom to the design, which, were the object meant for some such purpose as the cover of a vase, would be so laid out that it could be looked at equally well from any point. However, it is the object itself and not its use that I wish to consider.

The mirror-case—for we may as well call it by this name—is made of silver inlaid with gold on parts of which details are roughly engraved. This technique resembles that of some of the famous swords found at Mycenæ.¹ It was not uncommon in

¹ *Bulletin de Correspondance Hellénique*, vol. x. p. 342 ff.

Greek art, and we see a good example of it in the bronze statuette of a priestess² in the British Museum, which has a meander pattern of silver inlaid along the edge of the chiton.³ The mirror-case is circular and about 12.5 cm. in diameter. It is not of one piece of metal, but of two—an outer plain rim of silver, about 1 cm. broad, being fastened around, framing the inlaid portion. In section it is not flat. The outer rim is convex, while the inner part is composed of a flat band, encircling a wider convex band, and a small sunk circle forms the centre.

It is the inlaid portion that attracts our attention. Notwithstanding the much shattered condition of the object, one sees at the first glance that the inlaid design is of a double character, the broad convex band being occupied by purely geometric patterns, while the flat band encircling it is filled with scenes of human figures, all of them in lively motion. The geometric design is composed of nine circles, one of which is slightly larger than the others. Each circle contains a different pattern, while all the interstices are occupied by palmettes and rosettes. The border of all the circles is formed by the common wave pattern. It might on first thought seem strange that an artist who exhibits such variety in the pattern of the circles should have been satisfied to use only one form of border. This was apparently due to two facts: one, the few patterns the Greek artist had which were suited, on this very minute scale, to following a circle; the other (and this is the essential reason), that the edges of these circles coincide so that the borders of contiguous circles blend into one and the same, which would have been impossible had the borders been of dissimilar patterns. A third motive may be suggested, which cannot be proved, but of which I feel sure all who have studied Greek art will admit the force, namely, that if each circle had a separate border the design, as a whole, would be so broken up as to lack harmony, while now, owing to this mutual bond, it is gathered together into unity. The artist himself, however, apparently felt the need of giving

² MITCHELL, *History of Ancient Sculpture*, p. 280.

³ To judge by the description of the gifts received by Agamemnon from Cinyras, king of Cyprus, this technique was known in Homer's day (see *Iliad*, xi. 19 ff.; *Od.*, vi. 232). More complicated technique of the same sort is hinted at in *Iliad*, xviii. 488 ff.; *Od.*, xi., 609 ff.

life in some way to these long stretches of border, and to secure this he continually, but regularly, reversed the direction of the waves. For instance, the border of each circle runs in the opposite direction to the borders of the adjoining circles.⁴ Then, too, the waves of the two borders that divide the bands are reversed in the same way, the waves of the outermost border being turned towards the centre, thus drawing the design together and preventing any seeming tendency to spread beyond the edge.

When one comes to consider the patterns within the circles with which the convex band is inlaid, one finds that (with the exception of the larger one) they are composed of elements common enough in themselves, such as long-pointed hearts, palmettes, mæanders, rosettes, etc., but that the combination of them is, if not unique, at least extremely unusual, and suggestive of the style rather of Japanese than of common Greek art. If, however, the character of these patterns is not characteristically Greek, the arrangement of them affords an example of one of the most typical qualities of Greek art—namely, its balance. Take, for instance, the two patterns at the top. Let me state, however, that I have no proof that they were meant to be at the top, for this part of the mirror-case is broken off from the outer rim—but whether at top or bottom does not affect my point. These two patterns consist respectively of diamonds and squares; the next two on the right of stars; the two on the left are less rigid than the others, and may perhaps be best described as being combinations of small figures not adapted to continuous repetition, such as are called by the Germans *Füllornamente*. Only the two at the bottom are now left, and I hope I shall not be thought to go too far when I say that these also are of the same character. At first sight, one design being based on a mæander, the other on a circle, these last two patterns seem to break the rule which I have tried to show holds good for all the rest. But on close examination one sees that the mæander runs in circles, surrounding little circular rosettes, and I think it is this general curving of the design which balances the marked circles of the adjoining pattern, and accounts for the fact that these two apparently dissimilar patterns do not clash one with the other.

⁴ Owing to a mistake this does not appear in my drawing.

We now come to the consideration of the flat band which, as I have said above, is occupied by designs composed of human figures. This band is divided into halves of which the upper represents twelve of the Labors of Heracles, while the lower is filled by a Bacchanalian scene. The main distinction of the halves is that, while the scenes on the upper are separated one from the other by straight lines at approximately equal distances, the lower half comprises only one scene divided irregularly by scrolls.

The series of Heracles-scenes begins with the killing of the Nemean lion. Heracles leans forward to the right, grasping the head of the lion in his arms, in the same way as we see him on a metope of the Theseum,⁵ on coins of Heraclæa⁶ and Paconia,⁷ and on the Alexandrian coins of Antoninus Pius.⁸ It would be easy to cite many other instances of the representation of this incident; I wish, however, not to make a catalogue of scenes showing the Labors of Heracles, but simply to illustrate the character of the work under consideration. My analogies also are taken from works of different dates, but we must bear in mind that such types as these are very persistent, recurring century after century.

The second scene is open to a double interpretation. It may be Heracles and Hippolyte. On one of the later metopes from Selinus, Heracles is shown seizing an amazon by the hair in the same way, though in other respects the metope has little similarity to the scene under consideration.⁹ One of the Theseum metopes,¹⁰ however, shows the scene in almost the same way as the mirror-case. The second interpretation of which our design is capable is that of Heracles and a Giantess, as on certain Alexandrian coins.¹¹ This latter is, I believe, the true interpretation, and Hippolyte follows later in the series.

In the third scene on the mirror the opponent of Heracles is

⁵ STUART and REYETT, III, chap. I. pl. XI. 1; *Monumenti dell' Instituto*, x. 58. 1.

⁶ GARDNER, *Types of Greek Coins*, v. 6. 32.

⁷ *Coins of the Ancients (British Museum)*, 21. 6.

⁸ *British Museum, Catalogue of Alexandrian Coins*, pl. VI. 1044.

⁹ BENNDORF, *Die Metopen von Selinunt*, pl. VII.

¹⁰ *Mon. dell' Inst.*, x. 59. 2.

¹¹ *Brit. Mus. Cat. of Alex. Coins*, pl. VI. 1053.

so much destroyed that I do not think anything positive can be said of it; but I believe the scene shows Heracles throwing the Erymanthian boar down on Eurystheus, who is in a large jar, as on coins of Alexandria¹² and also of Perinthus.¹³

Next follows the contest between Heracles and the Ceryneian Stag. The figures are in the same position as on one of the Theseum metopes,¹⁴ so far as we can judge from the battered remains of it, and as in a bronze group at Palermo.¹⁵ This type occurs also in the same series of Alexandrian coins.¹⁶

The next scene shows Heracles, standing upright, drawing his bow. Although the Stympalian Birds are not represented, owing, of course, to the smallness of the design, they are without doubt what is aimed at. We see Heracles in the same position on a black-figured vase¹⁷ (armed, it is true, with a sling and not with a bow), and on an Alexandrian coin,¹⁸ where the figure is almost exactly the same as on the mirror.

Following the Stympalian Birds comes a scene where Heracles is shown managing a running horse, underneath whose feet lies a human body. This is much like the Theseum metope showing the horse of Diomedes,¹⁹ though in this latter no dead figure is shown. This group may perhaps be intended for Heracles and Hippolyte—a similar representation of the scene being given on certain coins of Antoninus Pius.²⁰

Next comes the Augean Stables. A striking analogy to this scene is to be found in one of the metopes of the temple of Zeus at Olympia, in which Heracles is shown in the same striding position, with the fork raised over his shoulders.²¹ Besides the fork, he is here also provided with a basket, as on another coin of Antoninus.²²

¹² See Nos. 2567 and 2540 in the *Government Collection, Athens*.

¹³ *Königliche Museen zu Berlin, Beschreibung der Antiken Münzen*, I. pl. v. 54.

¹⁴ STUART and REVETT, III, XI. 3. chap. I, pl.; *Mon. dell' Inst.*, x. 58. 3.

¹⁵ CLARAC, *Musée de Sculpture*, pl. 794.

¹⁶ See Nos. 2490, 2694 and 2956 in the *Government Collection, Athens*.

¹⁷ GERHARD, *Auserl. Griechische Vasen.*, pl. 324.

¹⁸ *Brit. Mus. Cat. of Alex. Coins*, pl. VI. 1048.

¹⁹ *Mon. dell' Inst.*, x. 58. 5. STUART and REVETT, III, 11. 5.

²⁰ SALLET, *Zeitschrift für Numismatik*, 1882, I. 4.

²¹ OVERBECK, *Geschichte der Griechischen Plastik*, p. 386.

²² SALLET, *Zeitschrift für Numismatik*, 1882, p. 4. pl. I. 5.

Now comes Heracles holding the Cretan Bull by horn and muzzle, in the same way as on another Olympian metope²¹ and on coins of Selinus.²¹ The same scene occurs reversed on the Alexandrian coins.²⁵

Following the Cretan Bull is the scene which I believe represents the Horses of Diomedes, though I have found no very close analogies. But the same series of Alexandrian coins which I have frequently referred to offers here another instance of a type which is similar to the one we are considering.²⁵ On the coin only the heads of the horses show, but there are two of them with Heracles and Diomedes between; the general composition of the two scenes being much the same.

After the scene representing the Horses of Diomedes comes what is without doubt intended to depict Heracles and the Cattle of Geryon. I cannot find any precisely similar treatments of this scene, but on an early black-figured vase we find Heracles represented leading away the cattle, no sign being given of Geryon himself.²⁷ Also Pausanias,²⁸ in his description of the Amyclæan throne, says *καὶ Ἡρακλῆς τὰς Γηρύνου βοὺς ἐλαύνει*, making no mention of Geryon, so that here we may see the prototype of our scene. I think it is almost certain the artist, owing to the size and shape of the field of the design, treated the subject in a way corresponding to his treatment of the Cretan Bull.

We come now to the scene with Cerberus. Again I find no exactly similar treatments of the subject—no treatment where, as here, Heracles is dragging forward a single(?)-headed dog; a type not quite the same, but not very unlike, occurs on the Alexandrian coins.²⁹

Last of all, we have a scene which can be interpreted in either of two ways. It may be the Hydra, as on coins of Phaestus,³⁰ or the Apples of the Hesperides. It is uncommon for Heracles to

²¹ *Ausgrabungen zu Olympia*, v. 17; *Die Funde von Olympia*, pl. xx.

²² GARDNER, *op. cit.*, II. 17.

²³ *Brit. Mus. Cat. Alex. Coins*, pl. vi. 1050.

²⁴ *Govt. Coll., Athens*, No. 2700.

²⁵ GERHARD, *op. cit.*, 105-6.

²⁶ III. 18. 18.

²⁷ *Government Collection, Athens*, No. 2542.

²⁸ GARDNER, *op. cit.*, pl. ix. 7.

be shown getting the apples for himself, but that the type was known is shown us by a black-figured vase.³¹ Moreover, it is more likely that the Apples would be at the end of the series than the Hydra. Also, if we turn once more to the Alexandrian coins,³² we find one that has almost exactly the same design as this on the mirror-case.

If we now regard the scene on the lower half of the band, we find a large part so destroyed that restoration is impossible. The rest, as we see from the ass, the panther, and the figure with a thyrsus, without doubt has to do with some Bacchanalian subject; but whether or not the chief person is Heracles, as is sometimes the case in such scenes,³³ it is impossible to state. It seems to me probable that Heracles is the protagonist.

Having thus considered these scenes, the fact can hardly help striking us, that although we find more or less exact analogies in Greek art for all the Labors of Heracles, as here represented, yet of nine of them the closest analogies are in Egyptian work—the Alexandrian coins. When in connection with this we remember the Eastern feeling exhibited in the geometric patterns, it seems to me not unlikely that this mirror-case was the work of a Greek artist working in Egypt under the influence of both Greek and Eastern art.

If we consider the absolute dissimilarity of the two styles of delineation on the two bands—one being mathematic and the other imaginative—we shall recognize that great skill has been shown in the combination of them, so that they do not clash. The methods adopted are very simple. In the first place, the strictly limited fields of the geometric designs are balanced by the division, with straight lines, of the Labors of Heracles into distinct scenes. It might seem as though the lower half of the rim—the Bacchanalian scene—ought also to be split up in the same way. The reason why it is not so treated is that, as we have seen above, there is a top and bottom to the work, and if the whole of the outer rim were cut by lines as in the upper half, there would be an appearance of rays which would tend to destroy

³¹ BENNDORF, *Griechische und Sicilianische Vasenbilder*, 42. 1.

³² *Brit. Mus. Cat. Alex. Coins*, pl. VI. 1052.

³³ OTTO JAHN, *Satyryn und Satyrdrama auf Vasen*.

the distinction of top and bottom. However, in order that the two portions should not be too unlike, the maker has divided the lower part at irregular intervals by scrolls; and further, to combine the differing design of the two bands into a harmonious whole, he has introduced into the figure-scenes little scrolls which carry the *pattern motive* into the imaginative series. In themselves they detract from rather than add to the excellence of the scenes, for these are composed with that feeling for filling the field of the design which the Greeks exhibited from the earliest times.

Take, for instance, the second scene—the one showing either Hippolyte or a giantess. Two figures could not be better composed to fill a background of this shape. See how the lion-skin falls into the space left by the bending of Heracles' body; how his club fills the upper corner; how the thigh of the figure on the ground fills the space between the outspread legs of Heracles—and the chief beauty of it all lies in the fact of its naturalness. Take the scene with the Stymphalian Birds, and note how perfectly the spread legs, the leaning body, and the stretched bow fill the space. Look at the scene with Cerberus. Again, the figure of Heracles tugging at the dog, his feet apart, and lion-skin flying, fills the field of the design with a naturalness that makes it look the simplest of tasks to draw such a scene, instead of one of the greatest difficulty. So it is with all these metope-like scenes. Another point of excellence, and one that is essentially Greek, is the balance of one scene by another. It is like what is to be observed in the metopes of the Parthenon, and it is carried out no more pedantically on the mirror-case than on the temple. Take the two scenes at top and see how the action is on lines that go in opposite directions, so that they lock into one another, as it were. The following two do not, to my eye, exhibit this balance, but the two after them do. Then comes another partial break, and finally the last two on each side balance. This same balance is apparent, though less plainly, in the Bacchanalian scene, but I feel sure that, were this part in as good preservation as the other, it would be as obvious.

To sum up: we see in this work qualities that are Greek, others that are Eastern; we find the closest analogies to several of the scenes on Egyptian coins of the second century of our era,

and we find that these analogies have prototypes many centuries older in Hellas. We may note, further, that the coins are not so fine in workmanship as the mirror. Taking all this into consideration, we may infer with some confidence that the so-called mirror-case was, as I have already suggested, made by an artist working in Egypt under strong Hellenic influence a century or so before the birth of Christ; but, until we have more works of the same technique to compare with it, we have not the means to fix the date with exactness.

We have now considered what I believe are the most important features of this work, and it seems to me that the conclusion to be formed from them is, that its main value consists not in showing anything new to the mythologist or to the student of technique, but in exhibiting in a very strong light some of the essential and permanent qualities of Greek art—composition, balance, grace, and finally the fact that the Greek artist cared not to be startlingly original, but was willing to recognize that his function as an artist was to endeavor to add his little to the development of what had preceded him, and not to try to invent something entirely new.

It is a pleasure to work on a beautiful object, even if the result of one's work be of no great importance, and the pleasure is enhanced by friendly sympathy. In the study of this little mirror-case I have owed more than mere help to Mr. E. A. Gardner, the director, and to Mr. A. G. Bather, a member, of the British School at Athens.

RICHARD NORTON.

Athens, January, 1894.

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ON THE POSSIBILITY OF ASSIGNING A DATE TO THE SANTORINI VASES.

INTRODUCTION.—The vases from Santorini have been long known as among the earliest types of Greek pottery, and have always held a position of considerable importance in the history of Greek ceramics. Aside from any question of style or provenance, their importance is partly due to the general belief among archaeologists, that it is possible, on geological grounds, to fix, at least approximately, the date of their manufacture. It has been suggested to me, as a geologist who has spent considerable time during the last few years in Greece in connection with the American School of Classical Studies, that it would be worth while to review the whole subject from a geological point of view, with the aim of determining what our geological knowledge may be in regard to the vases in question, and whether, or not, belief in the possibility of assigning a definite date, on geological grounds, is warranted by the facts of the case. Such a review seems the more important from the fact that this belief has assumed wide-spread proportions, the approximate date of 2000 B. C. being given (even in some elementary manuals) with all the appearance of being based on certainty.

Accordingly, the subject will be treated from a purely geological standpoint, such definitions and explanations being given as may seem necessary to render the discussion clear to the non-geological reader. I propose to begin with a brief geological description of the islands and of the volcanic phenomena involved in the question; next, to examine the circumstances in which the vases were found; and, finally, to discuss the question in the light of the facts so noted.

GEOLOGICAL DESCRIPTION.—By Santorini is understood a group of islands, the southernmost of the Cyclades, situated in lon. $25^{\circ} 20'$ E. of Greenwich, and lat. $36^{\circ} 24'$ N. On the map it is seen that the group is roughly elliptical in shape, with a major axis running generally north and south, of about 18 km., and a minor axis of about 16 km. The group is composed of a ring of three islands, with three channels separating them (the northern one being the deepest), enclosing an oval, land-locked bay, with three small islands in the centre. All around the group (on the outside), at a general distance of from three to five km., the water gradually increases to the depth of 100 fathoms and over. The circuit of this deep-water line is approximately of the same shape as that of the outer shore line of the group. Inside the large island ring, on the contrary, the gradient is much steeper, the hundred-fathom line running close to the shore. The water inside is of considerable depth all over the bay, and reaches its maximum of 213 fathoms (390 metres) at a point north of and not far from the small islands.

The largest island of the group is Thera, on the east side of the ring—a crescent-shaped island, enclosing the bay in the hollow of its western side, and bounding it partly also on the north and south. This island is of typically volcanic structure. In the first place, the inner concave side is extremely high and steep, rising almost perpendicular from the water's edge to heights varying from 60 to 360 metres, the average being about 200 m. From this high inner rim the land surface falls away quite regularly to north, east, and south, till it reaches sea level. In the second place, the structure of the inner cliffs, a striking feature which draws the attention at once on entering the bay, bears witness to the volcanic origin of the group. These cliffs show very many broad or narrow bands of black, red, yellow, and white rock, which, in general, run in a horizontal direction along its face. These bands, which are the ends of strata sloping down and out from the face of the cliff, parallel to the surface of the land above, are seen to be compact black lava, reddish *scoriae* (volcanic cinders), and light-colored tufa, which is a rather soft and crumbly rock, composed of the fine dust and ashes blown out of a volcano and cemented by the action of water and the atmosphere.

Such form, such structure, and such materials, prove conclusively that we have to do with a volcano. The only exception to this structure is the mass of Great St. Elias and Mesa Vouno, in the southeastern part of the island, which are composed of marble and schist, non-volcanic rocks, and which represent the original island, as it existed before the formation of the volcano, at the site of its activity.

The island of Therasia, the one on the northwest of the ring, though smaller than Thera, is of the same structure and composition: a high, almost perpendicular cliff inside, showing alternate beds of lava and tufa, with the surface sloping gradually down to the sea outside. The still smaller Aspronisi, in the gap between the southern point of Therasia and Cape Aerotiri on Thera, is also of the same character.

The smaller islands in the centre are three in number, excluding two rocky islets only a few yards square. As they are all due to historically known eruptions, and have very little connection with the subject under discussion, the description of them will be very brief. The oldest (that to the southwest) is Palaia Kaimeni, a narrow, rugged mass of black lava, 100 metres high, formed by an eruption in 197 B. C., and slightly enlarged in subsequent centuries. To the northeast is Mikra Kaimeni (71 metres high), formed by an eruption in 1573, a small but good example of a volcanic cone, with crater. Between these lies the largest of the three, the island of Nea (or Giorgio) Kaimeni, which owes its existence to two distinct eruptions, the first of which, in 1707, formed the cone of Nea Kaimeni (101 metres high), on the north. About the first of February, 1866, began a second submarine eruption, a short distance to the south of this, lasting till August, 1870, by which was created the cone of Giorgio Kaimeni (127 m. high), which finally was joined to Nea Kaimeni, forming, of the two, one island. This cone, when I saw it in the spring of 1893, was still giving out hot steam and sulphur vapors. This eruption aroused great interest in the geological world, and was studied with great zeal and care by many scientists, chief among whom was M. Fouqué, whose voluminous work¹ is the standard one on the whole group.

¹ *Santorin et ses Éruptions*, Paris, 1879.

VULCANOLOGICAL PRINCIPLES INVOLVED.—Having thus briefly sketched the structure and present condition of Santorini, we may rapidly review some of the chief vulcanological facts and principles which have a bearing on the geological history of the island. At the outset, a volcano may be defined as a generally more or less conical mountain of peculiar structure, situated at a point on the earth's surface where connection exists (or has existed) between the very hot and either actually or potentially liquid interior of the earth and its surface. As to the causes of volcanic action, little is known, and it is needless to enter into a discussion of them here. When, however, the channel of communication between the surface and the interior is open, there results, under proper conditions, the ejection of various materials: steam and gases of various kinds, hot water and mud, and, by far the most important, stony matter which goes to form the cone of the volcano. This last comes to the surface sometimes in the form of lava (molten rock), which is more or less liquid at first, but gradually cools, forming beds and masses of solid rock. Again, masses of rock already solid (such as the so-called "volcanic bombs") may be ejected; or, again, the solid or liquid forms of the rock may be so disintegrated from various causes that they reach the surface in the form of *scoriae* or cinders, *lapilli* (smaller fragments), or the still finer volcanic ashes, sand, and dust. The ejection of these materials may be, as will be seen later, either quiet—a simple welling out of liquid lava—or may be of various degrees of intensity, at times assuming the phase of explosions of almost unimaginable violence.

The typical volcanic cones formed by the accumulation of these materials may be divided into three main classes, according to the nature of the *ejectamenta* of which they are composed. There may be lava cones, made by successive streams of lava pouring out on the surface, such as are met with in the Sandwich Islands. Or, again, the cone may be made up chiefly of the finer fragmental materials, *scoriae*, *lapilli*, and ashes (so-called "cinder cones"), as at Monte Nuovo, near Naples. But the great majority of volcanoes are cones of a mixed type, composed of superposed sheets of solid lava, cinders, and tufa, which structure is generally further complicated by the presence of "dykes," *i. e.*, vertical sheets of rock

resulting from the filling up by melted material of cracks formed in the cone by the eruptive forces. Such a structure has been seen to exist in the outer ring of Santorini. Here have already been noted the superposed beds of lava and tufa, and on closer examination numerous vertical dykes are clearly seen cutting the beds exposed along the inner cliffs.

I shall now examine this last type of volcano and see more in detail what the structure of such a cone is. The more or less disintegrated material is blown out of the rent to a certain height and falls at a greater or less distance, resulting in the following structure. Starting from the orifice, the beds of cinders, etc., slope upwards and outwards on all sides, forming a funnel-shaped hollow—the crater; then, after attaining a maximum height, they slope downwards and outwards on all sides. The lava sheets are partly those that have flowed over the growing edges of the crater, and partly those that have been extruded from the flanks of the cone; in both cases following the slope of the cinder-layers beneath.

Now, in the outer ring of Santorini it is seen that all the beds slope down and *out*; there are none left that slope down and *in*. In other words, all the central, funnel-like part of the volcano has disappeared, and has given place to an enormous elliptical gulf or pit, measuring 11 by 7.5 km., and with a total depth, from the highest point of Thera to the greatest sea depth, of 750 m.; which means that in all more than 60 cubic kilometres of rock have disappeared. The dispersal of all this part of the original cone is explained, from many analogous cases in the history of volcanoes, chiefly by a tremendous explosion which blew off all the upper and central part of the cone.

As an instance, the familiar case of Vesuvius may be cited. Prior to 79 A. D., the cone of Vesuvius did not exist, but the encircling ring of Monte Somma was complete. Though it was suspected by some,² from the appearance of the rocks, that the mountain was of fiery origin, yet almost all tradition of an eruption had been lost. Suddenly, in 79 A. D., after a few preliminary earthquakes, a violent eruption began of showers of stones, ashes, and mud, and especially marked by a tremendous explosion, which destroyed all the southern half of the mountain, leaving Monte

² DIOD. SIC., IV. 21, 5; STRABO, V. p. 247.

Somma much as we see it to-day, the cone of Vesuvius being due to later successive eruptions of a more quiet character. A still more striking example is furnished by the volcano of Tomboro, on the island of Sumbawa, east of Java. In April, 1815, there took place an eruption lasting only six days, but which made up for its brief duration by its violence. This eruption is well known for the great explosion, or explosions, attending it, the greatest, indeed, on record, by which the mountain lost 1600 metres of its height, and a mass of *débris* estimated at 1400 cubic kilometres, was dissipated into the air, the island of Borneo, at a distance of 140 km., being covered with ashes. The tremendous outburst of Krakatoa, between Sumatra and Java, may also be recalled. After such well authenticated cases as these, which are only a few out of many, such an explosion as was necessary to produce the gulf at Santorini seems quite moderate. The structure and mode of formation of Santorini are, in fact, typical of a large number of volcanoes, and such a detailed description has been given in order that the non-geological reader, who is naturally unacquainted with all the facts, may see what data we possess for forming a quite clear idea of the geological history of the group.

This, in brief, is as follows. There first existed at the site of the present group a small island (St. Elias and Mesa Vouno) of metamorphic marble and schist. Near (and partially covering) this was formed, in the course of ages, a large volcano of mixed type, rising out of the surrounding sea and gradually growing by successive eruptions of lava and cinders, till finally an unusually violent paroxysmal eruption took place, chiefly characterized by an explosion which blew into the air all the upper part of the mountain, cracking the sides and thus giving rise to the three entrances into the bay. The scattered material was, of course, mostly lost in the surrounding sea, but some was deposited on the remaining slopes, where it can now be traced. This explosion was also, as suggested by Fouqué, perhaps accompanied by a sinking of the central part, resulting in an increased depth of the bay. At a subsequent period eruptive activity was resumed, though with greatly diminished power, giving rise to the small Kaimeni Islands in the centre of the bay; and at the present time the volcano may be said to be dormant.

THE VASE FINDS.—Having thus obtained an idea of the structure and mode of formation of the group, we may pass on to the circumstances under which the vases were found. Here I have used as my authority the third chapter of Fouqué's *Santorin*.

The tufa (or so-called *pozzuolana*), of which Thera and Therasia are partly formed, is known to be an excellent material for use in concrete or cement for submarine works, and for some years prior to the last eruption large quantities of it had been extracted and exported by the Suez Canal Co. for their own use. The process of extraction is very simple, as may be seen to-day, for it is still exported from the islands. Spots on the steep inner cliffs are selected where the tufa is of the requisite quality and in sufficiently thick beds, and this, being very soft and incoherent, is broken off with picks and crowbars and allowed to slide to the water's edge, where it is shovelled into the vessels waiting for it. The material was, at the time spoken of, chiefly obtained from the east and south cliffs of Therasia, and from near Acrotiri on Thera. In the course of these excavations rough walls were met with in the tufa, which, being common in the islands, passed without notice, till in 1866 Professor Christomanos of Athens heard of them, and, in conjunction with others, made regular excavations for them near the south end of Therasia. Other excavations were made shortly after by Fouqué as well as by MM. Gorceix and Mamet, in the neighborhood of the present village of Acrotiri on Thera.

These excavations resulted in the uncovering of walls built of rough (or in some cases hewn) blocks of pumice and hard tufa, cemented in places by a reddish mud of volcanic cinders, sticks of wood being also inserted here and there among the blocks.³ The plans of the buildings of which these walls formed part are in some instances quite complete, door and window openings were to be seen, and in one instance the base of a column in the centre of a square room.⁴ Among these walls were found numerous household utensils of the inhabitants, including a bronze saw,

³ It may be of interest to record that when I visited Therasia, in the spring of 1893, and inquired for these walls, I was informed by the Demarch and others that they had all disappeared—either destroyed with the tufa cliff or carried off for use in modern buildings.

⁴ For plans and details cf. Fouqué, *Santorin*, cap. III. p. 94, sqq.

mortars and pestles, and mills made of lava for grinding grain, as well as numerous vases and vase fragments, some of the vases still containing carbonized barley and other seeds. Most of the vases were found inside the wall enclosures, but others were found back of and outside of them.⁵

The walls rested either on lava, as at Acrotiri, or on a bed of tufa, as at Therasia, and were covered with tufa, in some cases to a depth of 30 metres. Traces of the old soil were found near and below the walls, and in a few cases a similar layer was also encountered at some height above them, between the tufa beds. The walls were in almost all cases standing upright, some reaching a height of two metres, or even more.⁶ All the space inside and outside them was filled with tufa, which covered and enclosed the vases and other remains.

The theory that these constructions were for sepulchral purposes was quickly disproved by their plans and by the objects found, as well as not found, in them. These show that they were in reality dwellings.

It has also been suggested that these buildings did not lie on the surface of the original soil, but were cave-like dwellings hewn out of the cliff, such as are at present in use in Santorini; this theory being chiefly supported by the presence of a layer of ancient soil above some of them. This view is shown to be false by the following facts.

Some of the walls were covered with beds of tufa so thin and

⁵ Fouqué's book being large, expensive, and rarely found in archaeological libraries, it may be of use to quote his own *résumé* of the principal facts in regard to the life of the primitive inhabitants, as revealed to us by these excavations (*cf. op. cit.* p. xvi): "These men were laborers or fishermen. They raised flocks of goats and sheep, cultivated the cereals, made flour, extracted oil from olives, wove cloth, fished with nets. Their dwellings were supplied with wooden timbers, and the walls were of squared stone. They made on the wheel vases oddly decorated and of characteristic forms. Most of their utensils were of stone, most commonly of lava, and others of flaked flint or obsidian. They were acquainted with gold and probably copper, though these metals were extremely rare among them. Wood abounded in the island, while now only a single tree (a palm) exists in the whole group. The culture of the vine, which is at present practised to the exclusion of all other agricultural labor, seems to have been unknown at this period."

It may be that the ancient name for this island, *Καλλίστη* (HEROD., IV, 147), or a tradition of it, dates from this epoch.

⁶ Fouqué gives very little information on this point.

incoherent that the excavation of caves beneath them would have been impossible. The natural situation of the buildings, and the presence of window and door openings in the rear and side walls, disprove this view. Further, M. Gorceix discovered traces of a roof of tiles and earth laid on beams, and it may be added that the finding of pottery outside the house walls is against such a theory.

The layer of ancient earth in the tufa above the walls is easily explained as being the remains of soil formed on the material which buried the buildings and which was itself subsequently buried.

Having thus seen that the tomb and cave-dwelling theories are alike untenable, the only alternative and the simplest explanation is that these were houses built on the slopes of the original volcanic cone, and subsequently buried by the ejections during an eruption; the inhabitants abandoning, in alarm, their houses and such of their utensils as they did not, in their haste, carry away with them. This eruption must have been sudden, and, as Fouqué observes, judging from the upright condition of the walls, accompanied by few or feeble earthquakes—a rather remarkable fact, as the presence of wooden beams in the walls (a precaution still in use in many places against earthquakes) indicates their frequency at the time the houses were built. After the primitive villages were thus destroyed, other eruptions followed, covering them still deeper. This went on for an unknown period, till, one day, a violent explosion took place, the pent-up forces becoming suddenly too great to be withstood by the mountain mass above; and, since there was no other outlet, the result was the disappearance of a large part of the cone and the formation of the deep central bay. That this catastrophe took place *after* the ejection of the tufa beds covering the walls, is shown by the fact that these beds are cut sharply off along the inner cliff down to the sea level, exactly like the lava and tufa beds lying beneath the walls.

DISCUSSION.—Since, then, the pottery antedates the great catastrophe, it is evident that if we can establish a date for the latter we shall have a limit on this side for the date of the former. Realizing the importance of this, and seeing that the geological phenomena involved were so striking and definite, archaeologists turned to the geologists for aid in solving the problem of the date

of the vases. Whether they were justified in this confidence—that is, whether geology, in our present state of knowledge at least, is capable of solving this special problem—it is the object of this paper to examine. M. Fouqué, who was not only the most eager investigator of Santorini, and the greatest authority on it, but who had also conducted excavations himself for the vases, was naturally the one most competent to deal with the question, and his opinion was most regarded and most authoritative. He accepted the task and gave an answer to the question, though expressing himself “with great reserve,” and ending with the remark: *Ce qui seul est absolument certain, c'est que Santorin a été habité avant l'effondrement qui a produit la baie.*⁷ As one may judge from these two remarks, his opinion of the arguments advanced by himself was probably not very high, and he evidently only brought them forward and published them as the best that one thoroughly conversant with the subject could bring.

This being the case, it is doubly unfortunate that his reserve has been forgotten by those who quote him, and that his provisional and hypothetical date has been given by non-geological writers with an assurance and a certainty which he himself would be the first to deprecate. It must, then, be remarked that what follows is by no means intended as polemical against M. Fouqué, whose weight as an authority on Santorini the writer would be among the last to dispute; but it is put forward as an impartial examination of the arguments advanced by him, and results, as the writer hopes he may succeed in showing, in their refutation. It is the writer's aim to make clear to the archæologist the real value of M. Fouqué's statements as geological arguments, and to put the question again on a safe and secure basis, though this involves leaving it as it was in the beginning—unanswered.

The arguments on which M. Fouqué rests his claim for a date of about 2000 B. C., and which are presumably the best, if not the only ones,⁸ are two in number, and are to be found on page 130 of *Santorin*. After stating that the formation of the large island

⁷ *Op. cit.*, p. 131. It may be remarked also that, in his *résumé* of our knowledge of the inhabitants and their pottery (p. xvi), he makes no mention of the date of the latter.

⁸ Though giving the subject considerable thought, I have not been able to invent any others, nor have I met with others advanced elsewhere.

scarcely began before the end of the pleistocene tertiary (Glacial Period), the duration of its growth being not less than the whole of the quaternary (present geological period), which has already lasted certainly very many thousands of years, he formulates the first argument, which is here given in a slightly condensed translation: "Observations on the islands in the centre of the bay show that after the great catastrophe there was *certainly*⁹ a long period of quiet. Then in 196 B. C. took place a new eruption, which produced Palaia Kai meni, although this was added to somewhat by eruptions in the first centuries after Christ. A second period of relative calm filled all the Middle Ages, and it was not till after the fifteenth century that the eruptions resumed their frequency and energy, and formed new islets. The second period of calm having had a duration of about ten centuries, one can, without rashness, allow to the first a minimum duration of double this, especially when one compares the intensities of the volcanic phenomena, so diverse as they are, which they followed. On this line of reasoning the formation of the bay would go back to about two thousand years B. C."

The argument above is based on at least two assumptions which are not in accordance with facts. The first assumption is that the length of the period of repose following a volcanic eruption is proportional to the intensity of the eruption preceding it. Now, while it is generally true that "a long-continued or violent eruption is usually followed by a prolonged period of repose,"¹⁰ yet the exceptions to the rule are many, and no fixed principle of the sort has ever been recognized, or even enunciated, by any of the great writers on volcanoes, such as von Buch, Scrope, Daubigny, Fuchs, Schmidt, or Dana. Lack of space does not allow the citation of many examples, but the following may be given to show the want of correspondence between the intensity of an eruption and the duration of the succeeding period of calm.

The best known case is that of Vesuvius. Starting from the most violent eruption of all, that of 79 A. D., we find the next great one recorded in 472, when the ashes were said to have reached Constantinople. During the next seven hundred years we find seven eruptions recorded, the last in 1139, when dust and

⁹ The italics are mine.—H. S. W.

¹⁰ Judd, *Volcanoes*, p. 33.

stones were ejected for thirty days. This comparatively very feeble eruption was followed by a period of almost absolute repose lasting nearly five hundred years. At the end of this time the volcano seemed quite extinct; so much so that the plain at the bottom of the crater was used as a pasture-ground for cattle. In 1631 took place the most violent eruption known since that of 79, when seven streams of lava poured down the mountain side, one of them flowing over the buried ruins of Herculaneum. Since then the volcano has been in a constant state of intermittent activity, very violent outbreaks occurring in 1737, 1779, 1793 (which lasted about eighteen months), 1822 (when six hundred feet of the cone were blown away), and 1872. Here we find the most violent eruption of all followed by only four hundred years of repose, while a comparatively feeble eruption (1139) was followed by nearly five hundred years; and the second most violent outburst of 1631 was succeeded by a period of gradually lessening activity lasting 106 years, broken by the great eruption of 1737, which in turn was followed by a period of many and irregular eruptions. A similar tale is told by Etna, and other volcanoes furnish as striking examples, which are quite enough to disprove the first assumption.

The second assumption seems to be that the intensity of the first eruption (that of the great catastrophe) was about twice as great as that which produced Palaia Kaimeni, that is, if the periods of repose are directly proportional to the intensities of eruption, which must be assumed as approximately true (if any such assumption is made), since the construction of mathematical formulæ for the relation between periods of eruption and repose is, from the nature of the case, impossible. A glance at the map of Santorini will be quite sufficient to show that the first eruption was much more than twice as violent as the second. It will be remembered that by the first explosive eruption a mass of material amounting to over 60 cubic kilometres was blown into the air, while by the second was produced only a small island, which, even granting that it has lost considerable from its bulk by denudation, could not have been one-tenth the size of the former mass, and was undoubtedly much less. The mass of material moved is here used as a measure of the intensity of the eruption, but the

manner in which the force was manifested points the same way. So, on this basis, it being taken for granted that the first assumption is true, we should allow much more than twice as great a duration to the first calm period as to the second, and hence place the great catastrophe at a date much further off than 2000 B. C.

But there are two more fundamental and more fatal points of weakness in this argument. The first is that Fouqué seems to assume that volcanoes act in a more or less regular manner; in other words, that there is a sort of periodicity in their eruptions. But, as is well known to all who have studied the subject, this is by no means the case. Volcanoes vary as widely as possible in the violence of their eruptions, in the periods between two successive eruptions, and in many other ways. There are volcanoes, such as Sangay in Ecuador or Stromboli in the Lipari Islands, which have been in a continuous state of activity ever since their discovery, while there are others, as Skaptar Jökul in Iceland and Monte Nuovo near Naples, which have had, or are due to, only one known eruption, and ever since have been to all appearances extinct. Between these two extremes there are all gradations, including Mt. Epomeo in Ischia, which has had only four known eruptions, those of 470, *ca.* 350 and 89 B. C., and 1302 A. D., and Vesuvius or Etna, with their irregular and spasmodic eruptive periods. In fact, in the present state of our knowledge, we can find no law governing the outbursts of volcanoes, though many attempts have been made, and, so far as we now see, they can be called regular only in their irregularity. It is, of course, not implied by this that they are not subject to the physical laws of the universe, but the fact should be made clear that up to the present time, owing to various causes, partly to the great complexity and difficult nature of the phenomena, we have not been able to discover the laws that regulate the action of volcanoes, or to establish any periodicity in their eruptions. Hence all reasoning based on such laws may justly be put down as unsound and unsafe.

It might be added that, though the data are very similar to those in the case of Santorini, no geologist has yet attempted to fix the date of the great pre-Pompeian eruption of Vesuvius, which produced the steep encircling wall of Monte Somma, or of that eruption that produced the Val del Bove at Etna.

But the weakest point in this argument is found in the sentence: *La seconde période de calme ayant eu une durée de dix siècles environ, on peut, sans témérité, attribuer à la première une durée minima double de celle-ci, surtout quand on compare l'intensité si différente des phénomènes volcaniques auxquels ils ont succédé.* Here it is seen that the assigned date, after all, rests on a merely personal estimate, or, to put it perhaps more correctly, a guess. What other grounds exist for placing the first period at double that of the second we are not told, and it is very difficult to see what they are or could be. For the sake of making the argument complete and logical, they should have been given. As it stands, the argument is seen to be founded on a purely personal opinion, and is hence of little or no scientific value.

The second argument is as follows, an exact translation being given, since some of the details are important: "At the north point of Therasia, and on the part of Thera opposite, the pumiceous tufa is covered with a bed of red pebbles, about 15 to 20 metres thick, enclosing marine shells. On the east shore of Thera, near Kolambo, my learned travelling companion, M. de Verneuil, and I, observed the same fact. All these spots have therefore been, since the formation of the pumiceous tufa, for some time beneath the level of the sea, then raised by a probably slow movement of elevation. Now on the part of Therasia thus raised there exist ancient constructions with inscriptions which enabled M. F. Lenormant to fix their date at the fifteenth century before our era. These constructions were built at a time when the elevation was even more marked than it is to-day, since a part of them is at present below the sea level. Now the formation of the marine bed which supports them and its elevation, which are consequently prior to the eighth century B. C., required a duration of time which I do not fear to estimate at at least ten or twelve centuries. One falls back, then, for the age of the pumiceous tufa almost on the date which I have fixed upon above."

This argument, as given here by Fouqué, is rather vague and uncertain. The tufa is presumably that spoken of on page 248, where its age is merely given as prehistoric. As he speaks of apparently the same tufa occurring all over the surface of Thera, even on the top of Megalo Vouno, it is possibly due to the last

eruption of the large volcano, but nothing definite is said of the tufa mentioned in the argument.¹¹ The impossibility of fixing the date of any inscription at the *fifteenth* century B. C. will be recognized by every epigraphist, and the use of the word *quinzième* is evidently a mistake, as later on he uses *huitième*, and bases his date on this latter figure.

The argument then seems, in brief, to be this: Buildings of probably the eighth century B. C. were found resting on marine beds, above tufa formed prior to the great catastrophe, which have since been raised above sea level. Therefore, estimating the time necessary for the formation and elevation of these beds at twelve hundred years, the date of formation of the tufa was about 2000 B. C.

The weaknesses of this will probably be at once apparent. In the first place, we do not know when the tufa in question was ejected—it may have been thousands of years before the great catastrophe. Then, there is uncertainty in regard to the buildings, not only as to their actual date as shown by the inscriptions, but their date relative to that of the marine beds, as it is impossible to say how many years elapsed between the elevation of the beds and the erection of the buildings. Next, subsidence and elevation may have taken place since their construction, as happened at the temple of Serapis at Pozzuoli; and so it is possible that the so-called marine beds were submerged beneath the water and covered with barnacles since the erection of the buildings. Last of all, and the most fatal weakness, is the estimate of ten to twelve centuries, which tallies so closely with Fouqué's other estimate. It is well known to all geologists that to estimate the time necessary for the deposition of any given bed is almost impossible in the majority of cases, and very uncertain even in the most favorable circumstances. We cannot be sure that the conditions always remained the same, and every

¹¹ Two discrepancies should be noted. The pebbles which are here called *rouges* are described as *cailloux roulés* on page 248; probably the latter adjective should have been used in the former place. On the same page, he says that at many points along the north shore (of Thera) there are cliffs composed of the *débris* of this pumiceous tufa, and "at the same time there are found these rolled pebbles . . . and blocks of lava with scopulas and barnacles adhering to their surface." Here there is not mentioned a regular bed such as is spoken of on page 180.

change in the conditions under which a bed is formed necessarily changes the time of its formation. Then, again, elevation and subsidence are phenomena whose regularity we cannot be sure of; they may be either slow or rapid; and in this case no figures are given which enable us to form any idea of the rate of elevation, and, from the nature of the case, it is probable that no figures can be given.¹²

So it is seen that this argument, like the first, depends largely upon a purely personal opinion and estimate, unsupported by either facts or figures, and is hence comparatively valueless. Both these arguments, in fact, show signs of having been written hurriedly, and without having received from their author the thought and attention which were due them.

And now that we have seen the unreliability of both these arguments, which are all that have ever been brought forward in support of a date (on geological grounds) for the vases, it is pertinent to ask the question: Can geology solve this problem? In the present state of our knowledge, and, so far as one can see, for a long time to come, the answer must be No. It must be borne in mind that we are here dealing with a set of phenomena most uncertain and irregular in their action, the direct observation of which is most difficult, if not impossible, and that the science of vulcanology is still in its infancy. One might almost as well ask a meteorologist to tell in what year a given oak tree was blown down, when no meteorological records of the region had been kept, except those of a few storms, since the event. So, however regretfully, geologists must, for the present, withdraw from the attempt to settle the question of a date for the pottery of Santorini. It is possible that the accepted date of 2000 B. C. may be right; geology does not deny it. But my plea is merely against the acceptance of the date as definitely, even though approximately, established on geological grounds, when to give a definite solution of the question is, as we have seen, beyond the powers of a geologist. Such a proceeding does far more harm than good to both sciences; and the establishment of a date for the Santorini vases on such an uncertain and illogical basis would surely, in the end, prove injurious to the science of Greek ceramics.

¹² Fouqué admits this uncertainty when he says that the movement of elevation was *probablement lent*.

PLACE OF MANUFACTURE.—In conclusion, as geology has been shown to be unable to answer one question put to it, it is only fair that an example should be given where it, and it alone, was able to solve an archæological problem, and thus to show that it may be of great value to its sister science. This example is furnished by the same Santorini vases we have just been discussing.

It was a matter of some importance and interest to establish the place of manufacture of the vases; whether they were imported into the group of Santorini, and, if so, whence, or whether they were of native manufacture. There being no clay suitable for their manufacture found at the present day anywhere on the group, it was at first thought that the vases must have been imported. But M. Fouqué had the happy idea of examining fragments of the pottery by the same methods as are employed for the examination of rocks. The process consists in grinding the fragment with emery on iron and glass plates till it becomes thin enough to transmit light, when it can be easily studied under the microscope by the usual petrographical methods.

In all the vase fragments thus studied, he found numerous minute fragments of volcanic rock and minerals, which could be identified with certainty as derived from Santorini itself, and, not only that, but from definite parts of the group; for the Santorini lavas, like those all over the earth, have their own small peculiarities, and can, in many cases, be easily recognized. Besides these mineral fragments, he was able to identify various organic remains—foraminiferae, diatoms, and sponge spiculae, of different genera—some of fresh and others of salt water origin. From such data he drew the following perfectly safe and logical conclusions:

1. That all the pottery was made in Santorini itself.
2. That the clay of which it was made was taken from a bed situated where the sea had access to it, and, further, where fresh-water streams brought to it detritus from all the rocks of the southern part of Thera.
3. That this clay bed is now either destroyed or covered by the sea, but that it was probably situated in a valley between the southern part of the present Thera and the original central cone.

HENRY S. WASHINGTON.

Venice, Italy, June 18, 1894.

A STUDY IN GREEK ARCHITECTURAL PROPORTIONS.

THE TEMPLES OF SELINOUS.

It is commonly assumed that Greek architectural proportions varied in such a way from century to century that if we had before us the exact proportions of a building we might infer its approximate position in a chronological series. This assumption is a very fascinating one, since it extends the hope of reducing Greek architectural archaeology to the basis of a science of mathematical exactness. And yet it is true that very little pains is usually taken to exhibit tables of measurements and proportions, and reliance is placed upon vague general impressions or upon a very scanty basis of measurements. In a subject in which exact methods of observation are only occasionally applied, it is hardly a matter for surprise that so slender a basis of inference as a single proportional aspect should be accepted as a means of determining the chronological sequence. This is precisely what has happened with the historians of Greek architecture. Krell and Durm, and Julius and Reber, are all followers of that fetich of Greek architectural proportions known as Semper's norm.

It may be well at this point to set forth briefly what is meant by Semper's norm. In his remarkable book, *Der Styl*, first published in 1860-1863, Dr. Gottfried Semper outlines the history of Greek architecture. In this he presents a scheme of proportions, which he is careful to state is a mere means of comparison and not a canon. It is the following: "If we take three average distances from column-axis to column-axis as the basis of a rectangle, whose vertical sides are equal to the height of the order, measured from the level of the top step of the stylobate to the upper level of the cornice (excluding the kyma moulding), we thus construct the *normal rectangle*, or in brief, the *norm*, whose measure of length or modulus is the lower radius of the column."¹

¹ Semper, *Der Styl*, 2d edit., v. II, pp. 392-395.

According to his view, in this norm all the principal relations and measurements of the system are contained. The norm of a temple, therefore, may be expressed as a fraction, thus:—

$$\frac{3 \text{ average axis-widths}}{\text{height of column} + \text{entablature}}; \text{ or, numerically, the norm of the}$$

 oldest temple at Selinous is
$$\frac{16.5}{(9 + 4.55)} = 13.5.$$

Applying this norm, he finds six stages in the history of the Doric style, which he characterizes as—

1. Proto-Doric.
2. Lax-archaic Doric (vii cent. B. C.).
3. Strong-archaic Doric (vi cent. B. C.).
4. Developed Doric (v cent. B. C.).
5. Attic Doric (v cent. B. C.).
6. Late Doric or Macedonian (iv cent. B. C.).

These divisions have been substantially followed by his successors.

In criticism of this norm we make two remarks: First, in the fractional form given by Semper the norm is unpractical. It is too difficult to compare fraction with fraction. A whole series of such fractions leaves the mind in a confused condition. Even Semper himself does not attempt to make close comparisons, and his successors are easily led to draw false conclusions. Thus, Semper is satisfied in assigning temples to general classes, without applying his norm so as to establish a serial order of individual temples. Krell (*Ges. d. Dorischen Styls*, 1870), while he expresses more exactly the successive stages of the norm from the horizontal rectangle to a square, and then to a vertical rectangle, nevertheless makes erroneous comparisons of individual norms.

Our second remark concerning Semper's norm is that it is insufficient. It makes no account of ground-plan proportions in general, assuming the inter-axial columnar widths to be the only important variable, and it makes nothing of elevation proportions in general, assuming the total height of the order to be the only important measurement. The distinction between column and entablature in Semper's norm has no functional value and might as well have been omitted. The insufficiency of Semper's norm is practically admitted by the group of writers we have

mentioned. Krell tabulates other proportions, but does not utilize them; Durm follows the same course.

A method analogous to that of Semper is followed by Bendorff in his work *Die Metopen von Selinunt*, 1873. He places the temples of Selinous in a series of chronological classes. One of his criteria involves proportions, not taken, however, from the elevation, but exclusively from the ground-plan. According to this norm, narrow temple cellas are early, wide cellas are late. To this we reply, as to Semper: a single proportional aspect is a slender basis of inference. Special causes may have operated to produce a wide cella in early times, or a narrow one in late, without materially affecting the general proportions of the period.

It is important, therefore, for us to inquire whether a single proportional aspect may not be accepted as of some, however slight, value as a norm, and whether the addition of many proportional aspects may not furnish us a norm of much greater value.

In order to limit our attention to a series of monuments, of which careful measurements have been taken, I have selected for comparison the five hexastyle Doric temples at Selinous, designated by Hittorff, in his *Architecture Antique de la Sicile*, Paris, 1870, as temples C, D, S, R, and A. Should the inquiry prove fruitful in the case of these temples, which are of the same general style and found in the same locality, similar modes of comparison might be established for temples of other styles or of the same style as modified by other local peculiarities. In the following tables I have presented first the measurements in metres. These have been compiled from the plates and text of Hittorff. In a few cases, to which I have attached a question mark, the measurements are hypothetical; in other cases they seem to be the result of careful observation.

GROUND-PLAN MEASUREMENT.

| | C. | D. | S. | R. | A. |
|-----------------------|----------|----------|-------------|-------------|-------------|
| Stylobate breadth, | - | - | - | - | - |
| " length, | 24.025 | 23.718 | 24.402 | 25.298 | 16.445 |
| " surface, | 63.862 | 55.183 | 61.754 | 67.829 | 40.790 |
| Cella breadth (ext.), | 1534.285 | 1308.830 | 1506.920 | 1715.938 | 670.792 |
| " length, | 10.503 | 9.538 | 9.282 | 14.262 | 9.023 |
| " surface, | 40.683 | 38.277 | 40.687 (?) | 50.000 (?) | 29.504 (?) |
| Pronaos length, | 427.293 | 365.086 | 377.657 (?) | 713.100 (?) | 266.451 (?) |
| Thesauros " | 6.858 | 7.442 | 7.750 (?) | 9.500 (?) | 4.881 |
| Adyton " | 27.016 | 19.211 | 28.250 (?) | 24.500 (?) | 13.142 |
| Pteroma breadth, | 6.040 | 10.990 | 5.000 (?) | 7.287 | 6.475 |
| | 6.761 | 7.090 | 7.560 | 5.518 | 3.637 |

ELEVATION MEASUREMENTS.

| | C. | D. | S. | R. | A. |
|--------------------------|--------|--------|--------|------------|-----------|
| Height of krepidoma, | - | - | - | - | - |
| " column, | 2.221 | 1.571 | 1.056 | 1.936 | 1.314 |
| " entablature, | 8.623 | 7.512 | 9.110 | 10.187 | 6.235 |
| " architrave, | 4.258 | 4.092 | 3.961 | 4.510 | 2.791 |
| " frieze, | 1.760 | 1.581 | 1.516 | 1.759 | 1.105 |
| " cornice, | 1.489 | 1.482 | 1.492 | 1.721 | 1.051 |
| " pediment, | 1.009 | 1.029 | 0.953 | 1.030 | 0.685 |
| " temple = col. + entab. | 3.070 | 3.840 | 3.620 | 3.300 | 2.150 |
| Breadth of triglyphs, | 12.881 | 11.604 | 13.071 | 14.697 | 9.026 |
| " metopes, | 1.110 | 1.013 | 1.012 | 0.975 | 0.636 |
| Three axis widths | 1.123 | 1.209 | 1.250 | 1.380 | 0.902 |
| | 13.262 | 13.200 | 13.816 | 13.500 (?) | 9.128 (?) |

COLUMN MEASUREMENTS.

| | C. | D. | S. | R. | A. |
|-------------------------------|-------|-------|-------|-------|-------|
| Height of shaft..... | 7.587 | 6.578 | 8.230 | 8.853 | 5.428 |
| “ “ capital (+ abacus)..... | 1.036 | .934 | .880 | 1.334 | .807 |
| “ “ neck of capital..... | .326 | .218 | .222 | .271 | .213 |
| “ “ echinus..... | .324 | .357 | .324 | .555 | .319 |
| “ “ abacus..... | .386 | .359 | .334 | .508 | .275 |
| Upper diameter of column..... | 1.502 | 1.149 | 1.245 | 1.796 | 1.058 |
| Lower “ “ “ | 1.944 | 1.669 | 1.818 | 2.229 | 1.342 |
| Breadth of abacus..... | 2.522 | 2.224 | 2.410 | 2.818 | 1.652 |
| Front intercolumniation..... | 2.477 | 2.731 | 2.682 | 2.376 | 1.701 |

ENTABLATURE MEASUREMENTS.

| | C. | D. | S. | R. | A. |
|-----------------------------|--------|--------|--------|--------|--------|
| Breadth of entablature..... | 23.483 | 23.006 | 23.618 | 24.762 | 16.095 |
| “ “ frieze..... | “ | “ | “ | “ | “ |
| “ “ cornice..... | 24.797 | 24.100 | 25.300 | 26.670 | 17.407 |
| “ “ pediment..... | “ | “ | “ | “ | “ |
| Length “ entablature..... | 63.260 | 54.471 | 60.970 | 67.293 | 40.440 |

From these measurements, which are made in metres and fractions of metres, we derive the following tables of proportions. These proportions, it will be observed, concern the ground-plan, the elevation, the columns and the entablature, including the gables or pediments. Some of these proportions, it will be observed, resemble Semper's norm in being expressible as quadrangles. The first proportion, for example, gives the quadrangle of the stylobate. Others may be designated as linear proportions, since they express the relations between lines. The second of the ground-plan proportions, giving the relation of the length of the cella to the length of the stylobate, is of this character. All of the proportions here given are either linear or rectangular. Both kinds of proportions we have regarded as important, though for present purposes it is unnecessary to group them separately. More fully expressed, the first of these proportions would read as follows: Breadth of stylobate : Length of stylobate = x : 1. The value of x is found by dividing the first term of the proportion by the second, and it is these values which we have expressed numerically in our tables. A considerable number of such proportions are tabulated by Hittorff (calculated by his son Charles) in *Livre Septième* of the text, but no systematic use is made of them as norms to determine the chronological sequence of the temples.

GROUND-PLAN PROPORTIONS.

| | D. | C. | S. | R. | A. |
|---|-------|-------|----------|----------|----------|
| 1. B. of stylobate ÷ L. of stylobate, | .430 | .376 | .395 | .373 | .403 |
| 2. L. of cella ÷ L. of stylobate, | .694 | .637 | .659 (?) | .737 (?) | .723 (?) |
| 3. B. of cella (exter.) ÷ B. of stylobate, | .402 | .437 | .386 | .564 | .549 |
| 4. B. of cella ÷ L. of cella, | .249 | .258 | .228 (?) | .285 (?) | .306 (?) |
| 5. Surface of cella ÷ surface of stylobate, | .279 | .278 | .251 (?) | .416 (?) | .397 (?) |
| 6. L. of pronaos ÷ L. of cella, | .194 | .168 | .191 (?) | .190 (?) | .166 |
| 7. L. of thesauros ÷ L. of cella, | .502 | .664 | .694 (?) | .490 (?) | .445 |
| 8. L. of adyton ÷ L. of cella, | .287 | .148 | .123 (?) | .145 | .219 |
| 9. B. of pteroma ÷ lower diameter, | 4.248 | 3.478 | 4.159 | 2.476 | 2.710 |

ELEVATION PROPORTIONS.

| | D. | C. | S. | R. | A. |
|---|-------|-------|-------|-------|--------|
| 10. Height of krepidoma ÷ H. of Temple, | .135 | .173 | .088 | .132 | .146 |
| 11. " column ÷ H. of Temple, | .647 | .669 | .697 | .693 | .691 |
| 12. " entablature ÷ H. of Temple, | .353 | .331 | .303 | .307 | .309 |
| 13. " architrave ÷ " " " " " " | .136 | .137 | .116 | .120 | .123 |
| 14. " frieze ÷ " " " " " " | .128 | .1156 | .101 | .1170 | .1166 |
| 15. Height of cornice ÷ " " " " " " | .089 | .078 | .073 | .0701 | .0704 |
| 16. " pediment ÷ " " " " " " | .331 | .331 | .277 | .225 | .23831 |
| 17. Breadth of triglyphs ÷ " " " " " " | .087 | .086 | .077 | .066 | .070 |
| 18. " metopes ÷ " " " " " " | .104 | .087 | .096 | .094 | .100 |
| 19. Three axis-widths ÷ " " " " " " | 1.030 | 1.030 | 1.057 | .919 | 1.011 |
| 20. Height of temple ÷ B. of stylobate | .489 | .5361 | .5356 | .581 | .548 |
| 21. " krepidoma ÷ " " " " " " | .066 | .092 | .043 | .077 | .080 |
| 22. " column ÷ " " " " " " | .317 | .359 | .373 | .403 | .379 |
| 23. " entablature ÷ B. of " " " " " " | .173 | .177 | .162 | .178 | .170 |
| 24. " architrave ÷ " " " " " " | .067 | .073 | .062 | .070 | .0672 |
| 25. " frieze ÷ " " " " " " | .063 | .062 | .061 | .068 | .070 |
| 26. " cornice ÷ " " " " " " | .043 | .040 | .0391 | .041 | .0386 |
| 27. " pediment ÷ " " " " " " | .162 | .128 | .148 | .130 | .131 |
| 28. " entablature ÷ H. of column, | .545 | .494 | .435 | .443 | .448 |
| 29. Height of Temple ÷ L. of stylobate, | .210 | .202 | .212 | .217 | .221 |

COLUMN PROPORTIONS.

| | | C. | D. | S. | R. | A. |
|-----|---|-------|-------|-------|-------|-------|
| 30. | Height of shaft ÷ Height of column, | .879 | .876 | .905 | .868 | .871 |
| 31. | capital ÷ H. of column, | .120 | .124 | .097 | .131 | .129 |
| 31. | neck of capital ÷ H. of column, | .038 | .029 | .024 | .027 | .034 |
| 33. | echinus ÷ " " | .038 | .048 | .036 | .054 | .051 |
| 34. | abacus ÷ " " | .045 | .048 | .037 | .049 | .044 |
| 35. | column ÷ lower diameter, | 4.436 | 4.501 | 5.011 | 4.570 | 4.646 |
| 36. | shaft ÷ " " | 3.903 | 3.941 | 4.526 | 3.976 | 4.045 |
| 37. | capital ÷ " " | .533 | .560 | .484 | .598 | .601 |
| 38. | abacus ÷ " " | .199 | .215 | .184 | .228 | .205 |
| 39. | Upper diameter of column ÷ lower diameter, | .773 | .688 | .685 | .806 | .788 |
| 40. | Lower " " ÷ H. of Temple, | .151 | .144 | .139 | .152 | .149 |
| 41. | Upper " " ÷ " " | .117 | .099 | .095 | .122 | .118 |
| 42. | Height of abacus ÷ Breadth of abacus, | .153 | .161 | .139 | .180 | .166 |
| 43. | " capital ÷ " " | .411 | .420 | .365 | .473 | .489 |
| 44. | Lower diameter of col. ÷ average front intercolumniation, | .785 | .611 | .678 | .938 | .789 |

ENTABLATURE PROPORTIONS.

| | | C. | D. | S. | R. | A. |
|-----|--|-------|-------|-------|-------|-------|
| 45. | Height of architrave ÷ Height of entablature | .413 | .386 | .383 | .390 | .396 |
| 46. | " frieze ÷ " " | .350 | .362 | .377 | .382 | .376 |
| 47. | " cornice ÷ " " | .237 | .252 | .241 | .2283 | .2275 |
| 48. | entablature ÷ Breadth " " | .181 | .178 | .168 | .182 | .173 |
| 49. | frieze ÷ " " | .0634 | .064 | .0631 | .070 | .065 |
| 50. | cornice ÷ B. of cornice, | .041 | .043 | .038 | .039 | .036 |
| 51. | pediment ÷ B. of pediment, | .1238 | .159 | .143 | .1237 | .1235 |
| 52. | triglyphs ÷ B. of triglyphs, | 1.341 | 1.463 | 1.474 | 1.265 | 1.653 |
| 53. | " metopes ÷ B. of metopes, | 1.326 | 1.426 | 1.194 | 1.247 | 1.165 |
| 54. | Breadth of triglyphs ÷ B. of metopes, | .988 | .838 | .810 | .707 | .705 |
| 55. | Height of entablature ÷ L. of entablature | .067 | .074 | .064 | .066 | .068 |

Having tabulated these proportions in such a form that their values may be readily compared, let us assume that the chronological series would exhibit an ascending or descending series of these numerical values. It would be evidently an arbitrary assumption should we adopt in every case an ascending series or the reverse. We need, therefore, some external assistance to guide us in determining the nature of the sequence. This assistance we may obtain in the general assumption that temples C and D are early, and that R and A are late. We here take it for granted that the form, mode of construction, sculptures, etc., of C and D are more archaic than those of R and A, without assuming the individual priority of C to D or of R to A. By the aid of this general assumption, when C and D are found to have higher values than R and A, our proportion may be arranged in a descending series. When C and D have smaller values, the series is an ascending one. Applying, therefore, our general assumption to each series of proportions considered as a norm, we reach the following results:

GROUND-PLAN NORMS.

On the following assumptions, the chronological sequence becomes:

| | | | | | | |
|----|--|------|------|------|------|------|
| 1. | Assume a narrow stylobate to be early, | R | C | S | A | D |
| 2. | " " short cella " " | C | S(?) | D | A(?) | R(?) |
| 3. | " " narrow " " " | S | D | C | R | A |
| 4. | " " " " " " | S(?) | D | C | R(?) | A(?) |
| 5. | " " small " " " | S(?) | C | D | A(?) | R(?) |
| 6. | " " long pronaos " " | D | S(?) | R(?) | C | A |
| 7. | " " thesauros " " | S(?) | C | D | R(?) | A |
| 8. | " " adyton " " | D | A | C | R | S(?) |
| 9. | " " broad pteroma " " | D | S | C | A | R |

ELEVATION NORMS.

| | | | | | | |
|-----|--------------------------------------|---|---|---|---|---|
| 10. | Assume a high krepidoma to be early, | C | A | D | R | S |
| 11. | " " low column " " | D | C | A | R | S |
| 12. | " " high entablature " " | D | C | A | R | S |
| 13. | " " architrave " " | C | D | A | R | S |
| 14. | " " frieze " " | D | R | A | C | S |
| 15. | " " cornice " " | D | C | S | A | R |
| 16. | " " pediment " " | D | S | C | A | R |
| 17. | " broad triglyphs " " | D | C | S | A | R |
| 18. | " narrow metopes " " | C | R | S | A | D |

| | | | | | | |
|-----|---------------------------------------|---|---|---|---|---|
| 19. | Assume broad axis-widths to be early, | D | S | C | A | R |
| 20. | " low temple " " | D | S | C | A | R |
| 21. | " high krepidoma " " | C | A | R | D | S |
| 22. | " low column " " | D | C | S | A | R |
| 23. | " high entablature " " | R | C | D | A | S |
| 24. | " " architrave " " | C | R | A | D | S |
| 25. | " low frieze " " | S | C | D | R | A |
| 26. | " high cornice " " | D | R | C | S | A |
| 27. | " " pediment " " | D | S | A | R | C |
| 28. | " " entablature " " | D | C | A | R | S |
| 29. | " low side elevation " " | C | D | S | R | A |

COLUMN NORMS.

| | | | | | | |
|-----|---------------------------------------|---|---|---|---|---|
| 30. | Assume a long shaft to be early, | S | C | D | A | R |
| 31. | " " low capital " " | S | C | D | A | R |
| 32. | " " high neck of capital to be early, | C | A | D | R | S |
| 33. | " " low echinus " " | S | C | D | A | R |
| 34. | " " high abacus " " | R | D | C | A | S |
| 35. | " " squat column " " | C | D | R | A | S |
| 36. | " " shaft " " | C | D | R | A | S |
| 37. | " " low capital " " | S | C | D | R | A |
| 38. | " " high abacus " " | R | D | A | C | S |
| 39. | " " strong diminution " " | S | D | C | A | R |
| 40. | " " thick column (at base) " " | R | C | A | D | S |
| 41. | " " slender " (at summit) " " | S | D | C | A | R |
| 42. | " " low abacus " " | S | C | D | A | R |
| 43. | " " " capital " " | S | C | D | R | A |
| 44. | " " wideintercolumniation " " | D | S | C | A | R |

ENTABLATURE NORMS.

| | | | | | | |
|-----|--|---|---|---|---|---|
| 45. | Assume a high architrave to be early, | C | A | R | D | S |
| 46. | " " low frieze " " | C | D | A | S | R |
| 47. | " " high cornice " " | D | S | C | R | A |
| 48. | " " " entablature " " | R | C | D | A | S |
| 49. | " " " low frieze " " | S | C | D | A | R |
| 50. | " " " cornice " " | D | C | R | S | A |
| 51. | " " " pediment " " | D | S | C | R | A |
| 52. | " " broad triglyphs " " | C | D | S | A | R |
| 53. | " " narrow metopes " " | C | R | D | S | A |
| 54. | " " broad triglyphs " " | C | D | S | R | A |
| 55. | " " high entablature on long side of temple to be early, | D | A | C | R | S |

In explanation of this table of norms, it is to be observed that such terms as "high" and "low" are to be interpreted by means

of the standards of comparison used at the time. Thus a "high" and a "low" frieze, a "high" and a "low" abacus, a "long" and a "squat" shaft, are all assumed to be early, but these members are described as high or low, long or squat, in reference to different standards of comparison. The standards used are the denominators or second terms of comparison given in the tables of proportions.

In regard to the usefulness of such tables of proportions, and their application as norms, it may be broadly affirmed that whenever we are entitled to assume a gradual growth or decline, without reactions, such tables give us at least the means of measuring the amount of growth or decline that has taken place in some particular member. But if we are inclined to make any one of these norms, such as Semper's (No. 19) or Benndorf's (No. 3) the guiding principle for the determination of the sequence, we have merely to glance at the fifty-four other chronological norms and see how different is the result according to our choice. Which one of these fifty-five norms shall be king? For us it is impossible to select any one as the determining norm, since we cannot assume that Greek architects were, like Semper, interested only in one class of proportions.

The second question which we raised above is a more difficult one. May there not be some combination of norms, sufficiently representative to be practically determinative of the question at issue? Even if we admit that special causes may arise to invalidate the claims of any particular norm, is there not some method of reaching an exact numerical ratio representative of a combination of proportions which may be of practical value in determining a chronological sequence? From the proportions we have already given we might readily select a certain number of norms and combine them, but in the presence of the rest how could we justify the right of this aristocratic body of norms to rule the rest? Let us then admit to every norm some share in the governing function and count the votes. We thus find, in taking the ballot for the ground-plan norms, that C has 1 vote for the first place (*i. e.*, the oldest temple), 3 votes for second place, 4 votes for third place, 1 vote for fourth place and none for the fifth. In this form it is difficult to compare the votes for one

temple with those for another, so we may consider the votes as fractions of a common denominator and add them. It seems to be convenient in the present case to adopt the number 15 as a common denominator and count a vote for first place as equal to $\frac{5}{15}$, a vote for second place as $\frac{4}{15}$, for third place as $\frac{3}{15}$, for fourth place as $\frac{2}{15}$ and for fifth place as $\frac{1}{15}$. We have then to multiply the votes by the numerators of their corresponding fractions and add the results. The denominator, being the same throughout, may be omitted. Thus the total value of the ground plan votes of C may be set down as 31, of D as 33, of S as 36, of R as 19 and of A as 16. Applying the same process to all the returns we have the following results:

VOTES.

| | Ground-plan. | Elevation. | Column. | Entablature. | Total. |
|----|--------------|------------|---------|--------------|----------|
| C. | 31 | + | 77 | + | 46 = 211 |
| D. | 33 | + | 82 | + | 43 = 210 |
| S. | 36 | + | 47 | + | 28 = 161 |
| R. | 19 | + | 46 | + | 26 = 125 |
| A. | 16 | + | 48 | + | 22 = 118 |

From this we gather the following

RESULTS.

| | | | | | |
|--|---|---|---|---|-----------|
| The sum of the ground-plan norms favors the sequence | S | D | C | R | A |
| " " " " elevation | " | " | " | " | D C A S R |
| " " " " column | " | " | " | " | C D S R A |
| " " " " entablature | " | " | " | " | C D S R A |

The sum of all the norms favors the sequence C D S R A.

From this table of results we see how uncertain is the inference even if we gather together into one group a number of norms. The study of the ground-plan produces one result, the elevation another, the columns and entablature a third. A somewhat higher degree of certainty attaches to the sum of all the norms; but even here care must be taken to properly estimate the value of the final sequence. The struggle for first place between C and D is so close that the omission or change of a single norm, even in our long series, would change the final result. Who can say, therefore, from a study of the proportions alone, whether C or D be the earlier temple?

With regard to S, we are on safer ground when we say that S is transitional between C and D on the one hand and R and A on the other; and this is true, whichever of these pairs we assume to be the earlier. In regard to the relative antiquity of R and A, the returns point in favor of the earlier date for temple R. This is a question which has not been raised by the writers on the temples of Selinous, since they have been satisfied in assigning these two temples to the same general class. The measurements and proportions seem, however, to show that the difference between R and A is greater than that between C and D.

In conclusion, we may remark that the determination of chronological sequence by means of the data furnished by proportions is a laborious method of reaching a result which may be sometimes attained more quickly in other ways—but cases may arise when this method may be the only decisive method. For this general purpose, and for the sake of all the special inferences which may be drawn, it is highly to be desired that careful measurements should be made on as comprehensive a scale as possible, and that the relations of these measurements to each other should be tabulated in some such way as we have indicated. Nevertheless, when we come to make use of proportions as norms determinative of chronological sequence, great pains should be taken to make the evidence cumulative, since the smaller the number of norms upon which we rely, the less certain, in general, will be the result.

ALLAN MARQUAND.

Princeton University,
November, 1894.

THE NEW FAUN FROM THE QUIRINAL.

[PLATES XVIII, XIX.]

Two blocks to the north-east of the Royal Palace and directly opposite the new Ministero della Guerra there is, on the corner of the Via Venti Settembre and the Via Firenze, an ancient palace site, in area 93 by 155 feet, exclusive of a drive-way on the east. Up to a year and a half ago this space was vacant and the property of the Italian government. On account of the belief, based upon the finding of inscriptions and on excavations carried on in 1885, that the house of the Nummii Albini¹ once stood here, and also, before it, some more ancient building, when the lot was sold to the Methodist Society of Italy for the erection of a large church and publishing house, the usual restrictions were made regarding the ownership of any statuary which might be found underneath the surface. The sinking of some fifty shafts, from 40 to 50 feet deep, which were to be filled with cement and broken stone to make pillars on which the great weight of the new building should be sustained, led to interesting discoveries.

Underneath the palace floors, which were quickly found, the tools rang upon other foundations, and bricks, fragments of pillars and pentagonal tiles of discolored white marble were soon disclosed. Five feet lower down, and fifteen feet beneath the ground level, formidable obstructions in the shape of massive brick walls were encountered. At various levels many fragments, of a more or less interesting nature, were brought to the surface and removed to the new Museo Nazionale at the Baths of Diocletian. Among the more perfect was a Nymph holding in her

¹ A large section of the palace of the Nummii Albini was discovered in 1885 in digging the foundations for the Ministero della Guerra and in prolonging the Via Firenze. See *Bull. Arch. Com.*, 1885, 1; 1886, 17, sqq. An interesting Mithraeum was discovered, in the course of the work, which extended into the area now being built upon.

extended arms a large shell. This may be seen in the Court of the Museum, just to the left of the entrance. The general appearance of the not ungraceful figure suggests that it may have been a garden ornament.

By far the greatest interest attaches to the discovery early in the year of a statue of great beauty of the type of the well-known Praxitelean Satyr reproduced on PLATE XVIII, (*Cf. JOURNAL*, IX, p. 452.) Its importance to the archæological world is yet a matter of investigation. That it is a replica of the Praxiteles type will not necessarily make it of great value; for there are a score of these ancient copies in Italy, some of no great artistic interest. But the members of the Commission immediately felt that this marble was very near to a great original. How near they are yet debating. Unofficial opinions have been somewhat freely expressed, and perhaps by all thus far permitted to see the statue² it has been considered, in its listless beauty and graceful idealization of the satyr-like form, quite the equal of any of the Vatican copies; by some it has been rated even above the Capitoline Faun.

The figure is of Parian marble of the most delicate degree of fineness. The discoloration is not great, nor is it marked in any particular part of the statue. As indicated by the photographs, the head and left forearm are still missing. The right arm has been twice broken, one or two toes and a part of a foot needed to be replaced, and the legs were in a number of pieces. But the junctures have been effected with unusual skill, so that the original outlines are faultlessly preserved. The trunk of the tree, against which the figure leans, is largely a restoration.³

² A special apartment, which will be called the Faun Room, has been prepared for the statue on the west side of the Court of the Museo Nazionale alle Terme Diocleziane. The opening of the room has been delayed in the hope that the missing parts of the figure may yet be found.

³ The statue has suffered less, in the long years of its burial, than many of the well-known Satyr copies. Nine fractures are easily discernable in the Capitoline Faun, while the nose, almost the whole of both arms with the pipe, and part of the base are restored. Eight junctures are to be seen in the celebrated Vatican copy, No. 406, Sala VI, Galleria delle Statue, and more than twenty in the beautiful No. 120 of the Vatican Museo Chiaramonti. An examination of many Fauns in the collections of Rome, Florence, Naples and Paris shows six to fifteen pieces in the body and limbs, and, almost invariably, that which every student of ancient marbles

Those who recall the Faun from the Villa of Lucullus, now in the Braccio Nuovo, at the Vatican, will have at once a fairly clear idea of the general pose and arrangement of the newly-found statue. It is reproduced on PLATE XIX for the sake of comparison. In each the youths are in the act of playing the flute. The position of the arms is almost identical, though the flute must have been grasped in a different way in the two figures and pointed in a line parallel with the right shoulder in the one, but downward and forward in the other. Both figures lean lightly against a tree trunk at the left hand, standing on the right foot, while the left is crossed carelessly in front and resting only on part of the ball of the foot and the toes. Thus, in the lower part of the body, the pose is the same. The panther skin in each is fastened over the right shoulder, crosses the upper part of the breast and falls negligently over the trunk of the tree at the left. The Lucullus Faun, too, was broken at the neck, as can be perceived on examination. On coming to height and general proportions our comparison begins to fail. The height of the new Faun, with the head, must have been about 1.31 m, or less than the Capitoline figure by perhaps .35 m, and less than the two Vatican copies, Nos. 406, by about .45 m. But it was taller than the Lucullus Faun by at least .2 m, while measurements at the calf, thigh and waist of the latter are sensibly greater.* Indeed, on observing the length of the leg and arm, and girth of waist, in proportion to the height, in the new statue, we find that we have one of the most slender and lithe of all the Fauns. Proceeding further in our comparisons to questions of marble, workmanship, technique and, finally, to all that is meant by the artistic conception, the similarity breaks down still further. They are little alike. The rude, chubby and yet not unpleasing form

is quite prepared to find in any statue, the line about the neck indicating the replacement of the head. The Dresden Satyr, which was once in the Chigi Collection at Rome, having been originally discovered at Antium, may even have a head of later chiseling, though this view is not held by the best authorities. The Palatine torso, now in the Louvre, is, of course, entirely without restoration, and with but two (?) fractures.

*For the Capitoline and Vatican Fauns see HELBIG, *Führer durch die öffentlichen Sammlungen klassischer Alterthümer in Rom*, vol. I, pp. 14, 55, 145 and 401; and also the authorities there quoted.

of the one is in striking contrast to the exquisite proportions and delicate grace of the other.

It is well known that to Praxiteles was anciently attributed the device of a support at the side of the figure that he might carve into the muscles the thought of relaxation from the upright and necessarily prim position of a body resting squarely on the feet. On seeing the Quirinal Faun one immediately thinks of the Hermes, of the Apollo Sauroktonos of the Vatican, of the Seilenos with the baby Dionysos of the Louvre, as well as of the Faun replicas of the galleries. The poise in our figure is so skilfully adapted to the character of the gracefully indolent flute player as to afford, by the falling away from an upright position, a moulding of flesh and muscle which suggests not alone rest, but action at rest, while an opposite extreme of too great dependence of the body, which is perhaps felt in the Seilenos, is avoided.

The panther skin has quite lost its suggestion of a covering. This thought possibly remains in the Louvre, Capitoline and many other copies where the skin is worn in a sash-like manner, with the head hanging rather low on the breast. It has been fancied that Praxiteles, in his redemption of the Faun from the goatish conception of the old satyr to the refined grace of the beautiful boy, as in the Capitoline statue, could not bring himself to any other characteristic of a satyr than the pointed ears under the curls, and therefore the panther pelt was purposely so draped as to avoid the whole question of a tail. Perhaps the fancy should not be seriously discussed. Had it any force it would be easy to suggest that this new marble has gone even further in its humanization of the satyr. It denies the need of any such disguise. An examination of the back of the statue shows that perhaps no satyr was ever chiseled where the curving outlines from shoulder to hip expressed more daintily the refinement of human beauty: with such a form even pointed ears under the curls would fail to harmonize.

The claim of the new Faun to a place by the side of the Capitoline will naturally be based upon more than one detail of its composition. Its technique shows the same wonderful skill. It has what Brunn must have intended when he spoke of "fulness of beauty—supported by a flawless osseous structure, although

this remains hidden to the eye." What would be added by the finding of the head one can only conjecture. Perhaps something would be lost. But even in its imperfect state it conveys much the same sentiment as its counterpart on the Capitoline, namely, that of the loftiest conception of the "frisky thing, neither man nor animal, but a being in whom both races meet on friendly ground."

MYRON R. SANFORD.

Middlebury College,
December, 1894.

AMERICAN EXPEDITION TO KRETE UNDER PROFESSOR HALBHERR.

At the annual meeting of the Council of the Archaeological Institute in May of last year (1893), the island of Krete was chosen as a field for exploration, and an invitation was extended to Prof. Federico Halbherr, of the University of Rome, to take charge of the work. This choice was due to the fact that Prof. Halbherr had been in charge of the first, most important and almost the only scientific excavations carried on in Krete, during 1884-6. He excavated at Gortyna under the auspices of the Italian government, discovering there, beside many archaic inscriptions, the queen of Greek inscriptions, the Gortyna law code; and then worked at Mt. Ida, in the famous cave of Zeus, at the request of the Greek Syllogos of Candia, where he discovered among many other objects the famous votive shields of the post-Homeric age.

Prof. Halbherr accepted the task and went to Krete in the autumn of 1893, expecting to encounter but few difficulties, in view of the cordial coöperation of the Greek Syllogos, which had entrusted him with the publication of the Corpus of Greek Kretan inscriptions. He found, however, that during the few years of his absence the political conditions had undergone a decided change, unfavorable both to the Greek population and to archaeological research. Negotiations for permission to excavate were prolonged for many months, although a permit facilitating archaeological investigation throughout the island was granted after long consideration. The autumn and winter months passed, therefore, in travel and investigation through little-known parts of the island, in the copying of inedited inscriptions and the studying of recently-found or previously unobserved antiquities. An attempt to systematically investigate the wall at Gortyna, where the famous Code inscription was found, was frustrated by the determined hostility of the inhabitants, who objected to the necessary deflection of the stream feeding the mill which washed this wall.

What follows is taken from Prof. Halbherr's letters.

The plan of work which Prof. Halbherr outlined on accepting his mission was briefly as follows, it being taken for granted always that

the requisite permit to excavate must be obtained. The sites which until this last visit seemed to promise the best results were Gortyna, Lebena, Eleutherna, Itanos and Praisos. Knossos was not considered, out of regard for the French School, which was known to have this site in view. At GORTYNA the central point is the ancient Agora, and especially that part of it containing the circular building, with the great code inscription, and its annexes. It was made quite clear by Halbherr's previous excavations that other legal inscriptions of the same period must exist at this point. The part of the Code already found covered merely a section of the *jus privatum*, and fragments found dispersed prove that the walls still unexplored are likely to yield other large sections of the laws which were at that time codified. While excavation at Gortyna is undoubtedly the most important work to be undertaken on the island, it is also that surrounded with the greatest difficulty, and involving the greatest outlay of time and money, owing to the unusual value of the land, irrigated by the stream whose course must be deflected, thus rendering useless the mill which supplies the village, and, in their eyes, endangering their entire system of irrigation. Even were these difficulties overcome, there remain expensive hydraulic works to be undertaken at the excavators' expense. Hence it would not seem possible to undertake any but a very partial exploration, in continuation of the Italian excavations of 1884-6. The second more important site is the temple of Asklepios at LEBENA, one of the most famous Kretan sanctuaries, and but little inferior to Epidauros as a centre of the cult of the god. A number of statuettes of Asklepios and many inscriptions relating to cures have been turned up on this site, proving its richness. Also some inscriptions of the III century B. C., on blocks of marble, contain fragments of the sacred ritual and parts of decrees relative to the administration of the sanctuary, being the only instances of the kind yet discovered in Krete. They raise interesting questions regarding the magistrates of the city and the functionaries of the temple, and appear to allude to some connection between the sanctuary of Lebena and the city of Gortyna. These inscriptions probably form part of the buried archives of the temple which it would be most important to recover, together with the votive offerings and the architectural remains of the sanctuary. At ELEUTHERNA, in the centre of the island, certain inscriptions have been casually found, of late years, which have exceptional importance, being fragments of law texts, like those of Gortyna, but with a characteristic form of letters. Also a statue in tufa with traces of polychromy, belonging to the primitive period of Greek sculpture, and the only example yet found of the early Kretan school. Eleutherna, therefore, appears to be an

important centre of very early civilization. In the eastern part of the island are Itanos and Praisos. PRAISOS was the centre of the Eteocretan culture, which is completely unknown to us. Here has been found a fragment of an archaic inscription in Greek characters, but in a language not Greek, which is up to the present an enigma, to be explained perhaps by new discoveries on this site, especially of bilingual inscriptions. Some figurines in terracotta from this site, now in a private collection in Candia, possess a character and style quite foreign to Greek and related to Oriental art. At ITANOS are the ruins of a temple, perhaps of Athena, well worthy of excavation.

Outside of these sites there are regions of the island still to be explored and a considerable amount of material already above ground that remains to be studied.

The above plan of work was mapped out before the present unfavorable condition of affairs had been realized, and could, therefore, be but partially carried out this season. Mr. Alden, a graduate of Yale, joined Prof. Halbherr shortly after his arrival in Krete, the Committee of the Archaeological Institute having arranged that he should take part in the work of exploration. He took a series of photographs and made copies of a collection of funerary and other inscriptions of Lyttos and its neighborhood, numbering about forty. In view of the unexpected delays and obstacles that arose to prevent excavation, Mr. Alden gave up his work during the winter and joined the American School at Athens.

Many antiquities in the museum of the Greek Syllogos were studied and photographed with a view to publication, and the search for inscriptions resulted in the gathering of over one hundred that are inedited, especially in the eastern half of the island, a large part of which was explored. The most important of the inscriptions found during this early part of the investigations is an imperial rescript, one of the longest inscriptions of the Levant, which will be published and commented by Prof. Mommsen in the next number of the JOURNAL. Another is an archaic Greek inscription belonging to an unknown city, in which a hitherto unknown Kretan magistracy, that of the *ephoroi*, so familiar in Spartan regions, is disclosed. Among sculptured objects placed at his disposal for publication, appear four heads of members of the family of the Emperor Augustus, a head of Commodus, a Hellenistic head of Hera, and a colossal statue of a *Kosmos* or other personage of the Macedonian or early Roman epoch. Acting in conjunction with the Kretan Syllogos or Archaeological Society he attempted to secure the preservation of the wall upon which the great

inscription of Gortyna is inscribed, by its purchase and removal to the museum of Candia.

Prof. Halbherr writes on May 14: "The chapters which, in the present condition of my researches in Kreta, can be prepared for our publication are the following; [1] Inedited inscriptions of Kreta. [2] Fragments of archaic vases of Apollonia. [3] Researches in the necropolis of Kurtes. [4] Four imperial marble heads in the collection of the Greek Syllogos. [5] A Græco-Roman statue and other works of sculpture from Gortyna. [6] Small Mycenæan vase with human head from Knossos. [7] The Latin inscription of Lyttos, illustrated by Mommsen."

During the first half of May Halbherr visited the southern part of the provinces of Amari and Haghios Vassilios, copying a dozen short inedited texts belonging to the temple of Apollon and Artemis at SULLA. They are votive inscriptions of the Roman period of no great importance. At KURTES, near Phaistos and Gortyna, peasants had just discovered the remains of a very ancient necropolis, and here Dr. Halbherr carried on some slight investigations and applied to the Pasha of Candia for permission to excavate a few tombs in a scientific manner. The greater part of the finds, consisting in vases of the last Mycenæan period, with extremely scanty decoration, has been added by purchase to the collection of the Syllogos.

Late in June the elaborate negotiations connected with possible work at Gortyna were brought to a successful close. The Greek Syllogos purchased the part of the land that is between the mill and the river, and also the wall with the great code-inscription. The investigations carried on during June may best be described in Halbherr's own words, written on July 8:

"My journeys of exploration have extended from the heights of Kamares, on the southern slopes of Mt. Ida, as far as the mountains of Lassithi, toward the provinces of Pediada and Rhizokastron. The results have been good. After a partial exploration of the necropolis of Kurtes and Kamares, I made a most important trial in the necropolis of Erganos. Here I excavated three Mycenæan domical tombs, one of which is perfectly preserved. It contained the remains of six bodies with all the sepulchral objects, consisting of different Mycenæan vases, still apparently in the position in which they were placed some thousand years B. C. Everything was gathered together, the position of each object was marked, the tombs drawn, the plans made, and the best-preserved skulls carried off to serve for the study of the race which spread Mycenæan culture throughout Kreta. Up to the present not a single necropolis in the island had been studied. Now we have the material from Kamares, Kurtes and Erganos for a first essay

on the primitive necropoli of Krete and as a source of new information on the question of Mycenæan culture in the islands of the Ægean.

"After this I was so fortunate as to discover two cities unknown up to the present. One is the city to which the necropolis on the mountains of Erganos belongs, the other is a large city situated on a height between Lyttos and Inatos. I have drawn up the plan of the first of these, which was rather insignificant; reserving the study and plan of the second (whose name I even hope to establish) until my return from Sitia. But even in this first visit I found in the latter city a few inscriptions, one of them archaic with the names of two *kosmoi*, and a goodly harvest of fragments of fine Mycenæan and archaic Greek vases with representations in relief, as well as a few small prehistoric or Eteocretan stones bearing new syllabic signs that should be connected with the discovery so recently made by Mr. Arthur Evans (see JOURNAL, IX, 3, pp. 417-423). I am also beginning to pay attention to this study of the pre-Hellenic writing of Krete, and every day am gathering some new material for it. Thus during the past week I noted two new signs in two stones discovered at Vorus near Phaistos.

"Dr. Taramelli [a young Italian archæologist recently arrived on a prehistoric mission to Krete] has left on his mission, after having made at my request a large number of photographs. . . The matter in which Dr. Taramelli has most efficaciously aided me has been in the exploration of the Messarà." On his arrival "I requested his aid for a few weeks, and after having done what I mentioned in my last letter, I confided to him two further pieces of work which he has carried out for us with the utmost diligence, and with all the success that could be expected considering the surroundings. He explored a grotto at MIAMÛ, near Lebena, and will prepare upon this subject an illustrated article. He found there some vases of the so-called 'period of Thera,' objects in bone, *etc.*, as well as the remains of a pre-Hellenic dwelling. He then proceeded, with some workmen, to another grotto situated on the slope of Mt. Ida, above *Kamares*. Of this latter investigation, in which numerous remains of very ancient pottery were found, he will report in his contribution on the subject of early Kretan ceramics.

"Among the latest epigraphic finds to which I wish to call your attention, beside the archaic inscription already mentioned, are: a Latin dedication to the Emperor Augustus at Gortyna; a decree of proxeny to a Roman named 'Vipstanus Acceptus,' in the same city; two fragments, one of which is Latin and refers to certain sacrifices, in the wall of the acropolis of Gortyna; and some late funerary inscriptions in the province of Pediada."

In a letter written from Candia a month later, on August 7, Prof. Halbherr says: "I return to the city this morning and am getting ready to leave to-morrow for Axos and several other points in the province of Mylopótamos. I have just completed an excursion in the eastern-most part of the island, that is in the province of Sitia, as well as a further excursion of less importance to Lyttos, making my third to this site. My labors in the peninsula of Sitia were concentrated at PRAISOS, the capital of the Eteocretans. Here I made two attempts at excavating, finding in one case a deposit of archaic terracottas of great importance, and in the other a building of sacred character, perhaps a small *temenos* or altar, which was situated on the third acropolis of the city. This third acropolis was not known up to the present, I think, and I believe myself to be the first to identify it. I shall therefore be able to give in our publication a contribution to the topography of Praisos, a city to which I wish to call the attention of scholars, and where I hope that some day the Archæological Institute will undertake excavations on a large scale. It is here, I believe, that we can find the solution of many problems relating to the earliest peoples of Krete and the sources of the native art of the island. In the meanwhile I have exhumed from the soil of Praisos a considerable number of most characteristic archaic votive terracottas, among which are several *πίνακες* with representations in relief, the publication of which will produce considerable sensation. . . . Among the small terracottas and *pinakes* is the figure of a man standing, in profile, whose head is covered profusely with hair; it is executed in a style which I do not dare yet to qualify as Hellenic, and it may be an Eteocretan work connected with Asiatic art. There are also fragments of figures of warriors armed with lance and shield, idols of nude goddesses with arms straight and close to their body, as in a well known series of Cypriote examples, *etc.* I regard as of especial importance a small *πίναξ* in perfect preservation, which bears in relief a rosette or floral ornament, exactly or almost exactly like that which is painted in the fragments of the wall decoration of Tiryns. On the third acropolis I also discovered a few small bronzes of no especial importance, though among them is a handle or ring of a tripod like those so well known, which were found on Mt. Ida and at Olympia.

"I should have pushed forward excavations on the main acropolis, and then in the temple of the city of Itanos, had the firman for excavation come to hand from Constantinople. I discovered no inscriptions: only a small funerary stele with two names was shown me at Vavelli, near Praisos, which I copied. I do not believe there is anything else in the village or in the ruins of the ancient city which I

have explored stone by stone, having camped within its limits for over a week.

"The other sites in the province did not yield much, having been recently explored by Dr. Mariani (during the past autumn) and by Mr. Evans (in the spring). I gathered, however, some new pre-Hellenic alphabetic signs to be added to those discovered by Mr. Evans; also a fragment of archaic terracotta with an archaic Greek inscription on the reverse reading ΔΟΦΝ~~||||~~ = Δόφ[σφν], or Δόφ[σων ἀνέθηκε]. I hope to be able to gather sufficient material for a separate article on the pre-Hellenic writing of Krete for our publication.

"At Lyttos . . . I discovered three new *bathra*, two of which bear the same dedication to the emperor Trajan, written in the same terms as the two found last winter, but under different Kosmi: the third is a dedication to his wife, Plotina.

"At Gortyna the Syllagos has deflected the canal which passes above the great inscription, in order to preserve it from the action of the water. In the course of the work three new fragments of archaic inscriptions came to light, thus increasing the value of our epigraphic novelties from Gortyna, which are already considerable."

On August 27 Halbherr writes: "I have in a single trip gone around Mt. Ida, visiting Axos, Eleutherna and Sybrita, entering Mes-sarà from the west, and stopping at Gortyna on the way back to Candia. The material gathered was as follows. At *Axos* (Oaxos): two small fragments of opisthographic stelæ, one containing a treaty between Axos and Tylissos. A terracotta weight with an inscription of the Roman period. At *Eleutherna*: a fragmentary dedication to the emperor Tiberius; another to one of the Ptolemies; three other fragments of inscriptions, one being archaic but unimportant. At *Sybrita*: three sepulchral inscriptions of the Roman period, which with the other funerary *tituli* copied last winter by me at Rettimo, constitute the first and only epigraphic series of this city. A Rhodian vase handle with the inscription ΕΡΓΙΔΑΜΩΝΟΞΙΤΑΝΑΜΟΥ. At *Gortyna*: a considerable number of inscriptions of different periods."

At the close of August Dr. Halbherr's work was interrupted first by an attack of fever, and then by the terrible illness of Dr. Taramelli, for whom he cared. In consequence of this last misfortune it was necessary for Prof. Halbherr to himself go over the work which he had expected to have done for the Institute by Taramelli. He then took up again his investigations at Gortyna, and was to start on September 24 for one of his last excursions, going to the part of the island lying south-east of Pediada.

CORRESPONDENCE.

THE CIRCULAR BUILDING OF SPARTA.

I thought that the appearance of Mr. Meader's and my own report on the excavations of the Circular Building at Sparta would have made any further comment on Mr. Crosby's ingenious, though quite hypothetical, remarks unnecessary. But Mr. Crosby has since published a second note.

I have before expressed an opinion, which I hold still more strongly now, that, even "at this moment, with the excavations we have carried on, I consider the reconstructions of the ancient topography of Sparta premature." At all events, it is not usual or wise to insist upon topographical hypotheses in the face of the clear facts revealed by the spade.

There are thus a few facts which I must bring out more strongly in view of Mr. Crosby's second note (AM. JOURN. ARCH., April, 1894). Mr. Crosby says in his paper (p. 342): "*But why, it may be urged, should Démos have been erected on a huge stone circular platform nearly one hundred feet in diameter! I admit this cannot easily be explained, if, as Waldstein supposes, this platform was actually of that size and shape. From my own observation, however, I should rather regard the diameter as nearer fifty than one hundred feet, and I believe, moreover, that further excavation will reveal the fact that this was not a round platform, but a sort of semi-circular retaining wall, erected with the object of giving the huge image a secure and elevated position close to the Agora and overlooking it.*"

Of Mr. Crosby's observation of archaeological data I have no evidence beyond the paper in question. But what is quite unprecedented is the fact that he should not have realized the bearing and understood the meaning of the report on the excavations which was before him. A reading of the report with ordinary care would have made it impossible for him to write his second note.

The diameter, instead of being nearer fifty than one hundred feet, is in reality 43.30 *metres* (nearer 150 than 100 feet). The platform was not *semi*-circular, but circular; for there is even now more than the semi-circle of wall extant, and this in spite of the insertion of the

Byzantine churches, the manifest destruction and reconstruction in later times, and the fact that on the north and northwest sides, where the land has reached the upper level, there was no need of layers of masonry.

I do not know of other instances of a gigantic circular structure to give "a huge image a secure and elevated position."

If Mr. Crosby had inquired into the nature of the statue upon which he bases so much, I could have informed him, in the first place, that the statue was not larger than double life-size. Moreover, from the marble technique, the statue cannot be assigned to an earlier date than the year 300 B. C., and may be much later; while even elementary training in the history of classical architecture teaches that the lower wall with the large *orthostati*, the whole without clamps or mortar, belonged to a very remote period of Greek architecture, and could never have been created for that statue.

The whole structure is of great importance and interest, and suggests many questions yet unsolved. But Mr. Crosby's strictures are without any ground. There can be no controversy with him on these points.

CHARLES WALDSTEIN.

I must remark that when I said that the so-called "Tomb of Leonidas" had the form of a *templum in antis*, I had good grounds for saying this. The name by which it goes in guide-books and among the peasants is no more the one "usually accepted" by serious archaeologists than the term "the Lantern of Diogenes" is at Athens.

AMERICAN SCHOOL OF ARCHITECTURE IN ROME.

There has been quite a general wish to see the establishment in Rome of an American School of Archaeology and Philology. Professors of Latin at some of our Colleges have interested themselves in the plan, and the Council of the Archaeological Institute at its meeting last May appointed a committee that should coöperate with an organized attempt to bring about the foundation of such a school.

In the meantime a trial has been made of another sort and on an independent basis, and an American School of Architecture was opened in Rome this autumn. Whether, through the coöperation of Latinists and archaeologists, there may be a consolidation of the various interests, remains to be seen. It is to be hoped for. We print below a communication from Prof. W. R. Ware, of Columbia College, wherein the genesis and character of the new school are outlined:

"Early in the summer a movement was set on foot to establish in

Rome a School of Architecture for the benefit of American students, and particularly of the holders of traveling scholarships in architecture. It appeared that the promoters of the scheme had already made sure of support to the extent of five thousand dollars a year, for three years, by way of experiment. Upon this assurance a Managing Committee was organized consisting of Mr. R. M. Hunt, Mr. C. F. McKim, Mr. W. A. Boring, Mr. W. M. Kendall, Mr. Augustus St. Gaudens, Mr. Edward Simmons, Mr. H. G. Marquand and Mr. J. A. Garland, of New York; Mr. R. S. Peabody and Mr. Martin Brimmer, of Boston; Mr. D. H. Burnham and Mr. Franklin McVeagh, of Chicago; Mr. George E. Leighton, of St. Louis, and the chiefs of the departments of Fine Arts or of Architecture in the principal colleges which maintain courses in Architecture, namely, Professor Norton, of Harvard College; Professor Chandler, of the Massachusetts Institute of Technology; Professor Ware, of Columbia College; Professor Babcock, of Cornell University; Professor Ricker, of the University of Minnesota, and Professor Laird, of the University of Pennsylvania. A tentative outline of policy was adopted, setting forth that it was the purpose of the founders to maintain a library and work-rooms in Rome, to receive as members of the school only the holders of traveling scholarships and others of equal attainments, that the course of study should cover six months in Rome itself and three or four months in Greece and Sicily and in other parts of Italy, and that while hospitality would naturally and cordially be extended to other persons, and especially to architects and students of architecture, these good offices should not be allowed to interfere at any time with the work of the students or occupy the time and attention of the officer in charge. It was agreed that this officer should have the title of Secretary, and that the work of local administration should be in his hands, the question how far and to whom the privileges of the school should be extended being left to his judgment. It is not impossible that the literary and work-rooms may prove serviceable to the students of archaeology and antiquities, and even that, as has already been suggested, some coöperation may be established which shall be of mutual advantage with such students.

"The School of Architecture was opened on the first of November under the charge of Mr. Austin W. Lord as Secretary, and with three holders of fellowships as students, in convenient rooms in the Palazzo Torlonia, at the corner of the Via dei Condotti and the Via Bocca di Leone, between the Corso and the Piazza di Spagna. It is understood that a special prize of the value of fifteen hundred dollars will be offered by some of the promoters of the enterprise, to be competed for this next year by graduates of architectural schools."

NOTES.

A GREEK OSTRAKON.

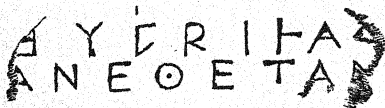
(Cf. *Journal of Hellenic Studies*, XIII, 121-3.)

In the earlier ostrakon of Mr. C. H. Keene (*Jour. of Hell. Stud.*, vol. XIII, p. 121), χ in line 6 is not to be interpreted with Prof. Mahaffy as $\chi\alpha\lambda\kappa\omicron\upsilon$, but as 600 (*i. e.*, Alexandrian or Egyptian drachmas). In line 7 we should decipher 'Αθηναίων 800 Attic drachmas=2729.3 grammes of silver, 600 Alexandrian=2736 (Müller, *Handb. d. kl. Alt-Wiss.*, vol. I, p. 846). The ostrakon is a banker's draft rather than a receipt; the universality of Attic credit in the fourth century explains the addition of $\sigma\delta\ \acute{\alpha}\lambda\lambda\alpha\gamma\eta\ \omega\ '\text{Αθηναίων}$. The date is admitted to be early. The difference of 7 grammes is perhaps banker's charge for exchange. For the χ =600, cf. lines 8 and 10, where ω =800, $\tau\acute{\epsilon}\rho\alpha\kappa\tau\alpha\iota$ ="is debited upon."

G. NICKLIN.

NOTE TO "SOME INSCRIPTIONS FROM THE ARGIVE HERAEUM."

In my article in the last number of the JOURNAL (1894, pp. 357-60), entitled *Some Inscriptions from the Argive Heraeum*, fac-similes were given of all the inscriptions published with a single exception. This omission was due to an error, and in view of the fact that a fac-simile of this very inscription (No. v) is of more importance than any of the



others on account of the peculiar form of several letters, it is here added in explanation of the remarks made in the paper.

J. R. WHEELER.

University of Vermont.

NECROLOGY.

GIOVANNI BATTISTA DE ROSSI. ✱

The death of Commendatore Giovanni Battista de Rossi, at Castel Gandolfo, near Rome, on September 20, removes perhaps the most conspicuous figure among contemporary archæologists. His loss will be felt in an unusually wide circle, far beyond the pale of specialists, and will be felt as the loss not merely of a remarkable teacher and scholar, but also of a sympathetic friend.

By birth and tradition De Rossi was a typical Roman, and his long career, so full of arduous and fruitful labor, will always be connected with the city he loved, and upon whose antiquities and history he shed so much light. Of the seventy-two years of his life a full half century was given to archæological work; and this work was of the kind that is truly epoch-making. It was original and it was broad: it was based upon clearly-defined principles, and it reached out into as many fields outside that of pure archæology as was required for a perfectly rounded knowledge. His work was of three kinds: practical excavation; oral instruction; publication. He had charge of the excavation of the Roman catacombs for many years with great success. His oral teaching was given in many ways: to regular classes as professor in the Academy of Juridico-historical Studies, to the select company that came together for so many years under the title of the Society of Students of Christian Archæology, and to the more general audiences that gathered, on certain festal occasions or anniversaries, in the very catacombs to listen to his masterly improvisations. And, finally, his published works extended in uninterrupted series from 1849 to the time of his death, and form an unsurpassed monument to his science and industry. A catalogue of them up to the year 1892 was given in the volume published by the French School in Rome to commemorate his seventieth birthday; their titles occupy some fifteen pages.

Although De Rossi will always be identified with Christian archæology, he had a strong grasp upon a wide range of other subjects. Ancient Rome was almost as familiar to him as Christian Rome, as is shown by many papers on its topography, society, laws and antiqui-

ties. He was also part editor of the Ancient Roman inscriptions in the Latin Corpus published by the German Institute, of which he was always a principal leader, particularly in the old days of his great friend and compeer Henzen.

Christian archæology was his first and last love, and in it he stood without a peer. He studied it when a mere youth, under Padre Marchi, who was the first in this century to revive the study of the Christian catacombs, sadly neglected since the golden days of the great Bosio. De Rossi became more than the Winckelmann of Christian archæology as a science: he was as well its Ottfried Müller and its Schliemann, for he not only established canons of judgment and a scientific apparatus, but excavated a large part of the monuments to which these canons and apparatus were to be applied. The first centuries of Christianity became in most of their aspects an open book to him. His knowledge of its life, literature, beliefs and history enabled him to solve the difficulties arising in the study of art and archæology.

The criteria which he has established for judging the age of the catacombs, their history and formation, their inscriptions and decoration, will remain as they are now, the norm for all other investigators. The method by which he worked was even more important than the actual work he did. At the same time he was unusually fortunate in being able to carry on excavations unhampered, being for so long in full charge of the catacombs and backed by a large body of enthusiastic admirers. De Rossi's predecessors had made more or less use of the epigraphic material of the catacombs, and had succeeded in identifying many of them, so that his *descriptive* work in these fields is not entirely novel. But the *critical* and analytic department of the study may be regarded as his especial creation, and he was enabled to give for the first time a clear idea of the historic development of the catacombs from the post-apostolic age until the fourth century. As the catacombs now appear, their form was given to them principally in the second half of the third century, after they had entirely ceased to be under the protection of the law. By the application of his methods he was enabled to dissect every large catacomb into its several units, tracing its gradual growth, showing what were the primitive nuclei, and associated nuclei, with the primitive condition and gradual accretions of each, showing when and where new galleries were dug below and beside the earlier ones, how and when the nuclei were joined. His ability to date inscriptions by means of variations in formula and form of letters, and to determine the age of frescoed and other decoration were important means in obtaining the above result.

He was also able to trace the history of the catacombs from the time of their disuse in the fourth century, principally by means of mediæval literary sources, which he was the first to employ. He was indefatigable in his study of manuscript sources and collections of Christian inscriptions, itineraries of pilgrims, etc.

In 1861 he commenced the publication of his corpus of the Christian inscriptions of Rome, the second volume of which unfortunately remains unfinished. But his work upon it dates from his first studies, and his earliest writing is an essay composed in 1848, to be read before the Roman Archæological Academy, in which he outlined the entire plan of his work, having already in that year collected about 8000 inscriptions. Shortly after, in 1863, he founded his periodical, the *Bullettino di Archeologia Cristiana*, which he continued up to the time of his death, and all the contents of which are by his own hand. It was the main repository of his special monographs, of his reports on the latest discoveries in the catacombs, of notes even on investigations in Christian archæology outside of Rome—everything, in short, that could not find a place in his larger publications. The studies on the catacombs, which formed the bulk of its contents, are in the same form as the contents of his *Roma Sotterranea Cristiana* and supplement that work. Considering his sole authorship of its contents, I remember very well how great a privilege I esteemed it that he should be willing to print in this review, nearly two years ago, a paper of mine on the Lateran cloister. This *Bullettino* he regarded as the greatest of his works, and being a personal one, desired its publication to cease with his death.

In 1864 De Rossi began and in 1877 he ended his *Roma Sotterranea Cristiana*, in three folio volumes, which has been the one great mine of information on the Roman catacombs, and has given him the greatest fame. He afterwards combined the Early Christian and the mediæval periods in his publication on a large scale of the Christian mosaics of Rome (*Mosaici delle chiese di Roma*), with colored plates, illustrating ten centuries of Roman art. Then came his contribution to the mediæval topography of Rome in the *Piante di Roma anteriori al XV° secolo*. The most characteristic and interesting of his researches into Mediæval Roman archæology concerns the families or schools of artists who built and decorated so wonderfully the churches of Rome and its province during the XII, XIII and XIV centuries. He laid the foundation for the knowledge of the sequence and chronology of these artists and their works, by which we who come after him are profiting.

The prince of Christian archæology gathered about him a large number of followers: almost all noted students of Christian archæ-

ology were more or less his pupils. In France such masters as Martigny, Müntz and Duchesne, in Germany Kraus, in Italy Stevenson, Marucchi and many others. The group of archæologists in Naples, the rising school of archæology at the German College in Rome, with its De Waal and Wilpert, and many other names that might be mentioned, are to be regarded as developed entirely under his influence. Like Mommsen for Roman antiquity, he became the focus for a wide network of information, embracing early Christian studies the world over. It would be impossible to avoid the recognition that a large part of this influence was due to the charm of his personality and to his warm-hearted appreciation of the work of others. The writer had the pleasure of intimate association with him for several years at the very commencement of his archæological studies, and will always feel inexpressibly grateful for the praise given to his earliest attempts at original investigation—praise which was the greatest incentive to perseverance. But even more than the praise, I think it was the tone of equality, almost of deference, for the opinions of the very young students which acted as a stimulus.

The outer world of Europe knew him well. Hardly a crowned head or member of a noble house that visited Rome without knowing him. He had, with all his *bonhomie*, something of the air of a *grand seigneur*. The thousands of devout catholics who visit Rome as of old the mediæval pilgrims, knew him well, for he it was who unlocked to them the gates that led into the sadly charmed land of early martyrs and saints: he, who in the very halls where they gathered for worship and the galleries where their bodies lay, would eloquently rehearse the legends of their lives and the history of this catacomb, their resting-place. For many years he acted as cicerone of the catacombs, not merely for parties of friends but for all comers. And so, in the minds of tens of thousands throughout Europe, he is deeply associated with religious sentiment in a way far different from the manner in which other archæologists are thought of. Some idea of this fact can be gathered by a glance at the album containing the names of those who subscribed to the gold medal given him on his sixtieth birthday, and representing almost every country in the world. The affection in which he was held was shown even more by the men who gathered in Rome for both his sixtieth and seventieth birthdays.

A. L. FROTHINGHAM, JR.

REVIEWS AND NOTICES OF BOOKS.

A. ERMAN. *Life in Ancient Egypt*. Translated by H. M. Tirard. With 400 illustrations in the text, and 11 plates. Pp. vii, 570. Macmillan & Co., London and New York, 1894. Price, \$6.00.

This work is a translation of Erman's *Aegypten*, published in 1889. It is enriched with more abundant illustrations, but the text remains substantially unmodified by the results of the excavations and discoveries of the last five years. Even though the alterations to be made by thus bringing the volume up to date would have affected, as Erman declares, matters of detail and not the general scope of the work, we cannot help feeling some slight regret that the English translation had not also presented the latest acquisitions of knowledge on the subject. Such a regret, however, is a small matter in comparison with the satisfaction we feel in having this valuable work placed in the hands of a wider circle of English-speaking people.

The scope of this volume is much the same as that of Wilkinson's *Manners and Customs of the Ancient Egyptians*, but the treatment is more systematic and is inspired by the study of original documents rather than secondary sources of information. The following titles of chapters is a good index of the scope of the book: Introduction; The Land of Egypt; The People of Egypt; History of Ancient Egypt; The King and His Court; Political Conditions in Egypt under the Old Empire; Political Conditions in Egypt under the New Empire; The Police and the Courts of Justice; Family Life; The House; Dress; Recreation; Religion; The Dead; Learning; Literature; The Plastic Arts; Agriculture; Arts and Crafts; Traffic and Trade; War. Under each of these headings there is an admirable survey of the subject and significant observations which will interest even those who are acquainted with more highly specialized treatises. The monuments, especially the wall paintings and reliefs which figure so abundantly in the great Egyptological publications, have been carefully studied by Erman; but even more important in contributing value to his work have been the inscriptions, particularly those contained in

Lepsius' *Denkmäler* and in *The London Select Papyri*. The monuments are thus made to speak to us through the mouth of the people. In spite of the fact that these inscriptions convey but little information in proportion to their length, the author shows rare critical acumen in severing the wheat from the chaff. This leads him to report the shadows as well as the high lights of Egyptian life.

The book is characterized throughout by a strong historic sense of the changes in Egyptian life through the different periods. In every chapter he treats his special theme under the Old Empire, then under the Middle and the New. This fixes his lowest limit at the 20th dynasty. The constitution of Egypt of the later centuries, under the Libyans, Ethiopians, Assyrians, Persians, Greeks and Romans, he considers as too complicated to be treated together with the Egypt of older days.

This volume is full of information, compactly and well expressed, and deserves a wide audience of intelligent readers.

A. M.

SALOMON REINACH. *Antiquités Nationales. Description Raisonnée du Musée de Saint-Germain-en-Laye. Bronzes Figurés de la Gaule Romaine*. 8vo., pp. xvi, 384. Librairie de Firmin-Didot et C^{ie}, 1894.

We welcome this as a model catalogue. Five years ago the same indefatigable and accomplished archæologist catalogued the pre-historic monuments of the National Museum at Saint Germain. The present volume comprehends the collection of figured bronzes of Roman Gaul. Though few of these objects can be said to be possessed of æsthetic charm, such a collection is of interest and importance as furnishing material for a knowledge of the Gallic race under Roman dominion. Five hundred and forty-five objects are here catalogued. They comprise Græco-Roman divinities, Keltic divinities, various personages, heads, busts, masks, animals, vases and parts of figured vases, knife handles, lamps and other objects. The volume is introduced by an excursus on the Origin and Characters of Gallo-Roman Art. Here the author sums up the general characters of Gallic, or more widely of Kelto-Scythic art, as consisting:

1. Of a prevalence of geometric decoration;
2. A prevalence of a taste for symmetry above that for the living form, of logic over the imagination;
3. A taste for the employment of bright colors;
4. A taste for perforated work;
5. A tendency to stylization, that is, the transformation of human and animal forms into decorative motifs.

Upon this native stock, which of itself did not lead to figured sculpture, are grafted the tendencies of Roman art. In its essence this is not strictly Roman, but Alexandrian Greek, the art which had impressed itself upon Pompeii and Herculaneum now finds its way directly and indirectly to Gaul, and producing a provincial variation rather than a new type of art.

In a few cases, such as that of the Jupiter of Evreux (No. 1), Cybele (No. 91), the Hermaphrodite (No. 118), Hercules and Antæus (No. 124), and the bust of an Ephebe (No. 213), we find interesting variations from and analogies to well-known statues. Even where there is no such interest in individual objects, it is a valuable piece of work to have properly classified and catalogued a collection concerning the provenance of the contents of which so much is known.

This catalogue belongs to a new class of museum catalogues, of which the Berlin Museum Catalogue of Ancient Sculptures is a distinguished example, and the Boston Museum Catalogue of Greek Vases is another, in which, as far as possible, every object in the collection is reproduced by a graphic illustration.

The chief aim of the author was to reproduce accurately, in a manner sufficient for all ordinary purposes, and at the same time economically, *every object* in the collection. We congratulate him on the successful attainment of this most practical idea.

A. M.

A. KALKMANN. *Die Proportionen des Gesichts in der griechischen Kunst*. Dreiundfünfzigstes Programm zum Winckelmannsfeste der archäologischen Gesellschaft zu Berlin. Quarto, 112 pp., four plates and twelve illustrations in the text. Berlin, Georg Reimer, 1893.

The proper proportions of the face,—the relation of its parts to one another and to the entire figure,—have at all times been of the highest importance to artists, and more than one treatise on the subject has been composed for the purpose of fixing a norm. It may be that the *Κανὼν* of Polykleitos was not a book (as Kalkmann, on the authority of Chrysippos, believes), but only a statue from which rules of proportion were to be deduced; at any rate Vitruvius (III, 1, p. 65 ed. Rose and Müller-Strübing) gives rules, derived, without doubt, from some previous writer, showing that at least one writing on the theory of proportions existed in ancient times, while in modern times the subject has been repeatedly handled. The evident importance of these proportions is such that if it can be shown that they were considered by the Greek sculptors as subject to definite rules, and if the changes in those rules introduced by particular persons or at particu-

lar times can be determined, the history of Greek sculpture can be written with a degree of ease and certainty otherwise unattainable.

For several years it has been evident that certain archaeologists were paying great attention to the measurements of works of Greek sculpture, not merely for the purpose of determining whether separate fragments belonged together, or the like, but with a view to using the proportions found by measurement as indications of the date and school to which the works belong. If a certain system of proportions can be shown to be peculiar to a certain school, works that show those proportions can be consigned to that school. So F. Winter (*Jahrbuch*, 1887, p. 226) says: "*Das Proportionsystem, nach welchem der Kopf des sog. Theseus construiert ist, muss für eine bestimmte Periode in der attischen Schule kanonische Geltung gehabt haben,*" etc., and fixes by measurements the system of proportions for Attic artists of a given period. In another article (*Bonner Studien*, p. 143 ff.) the same writer employs the proportions of the face as found by measurements in determining the origin of the head of Iakchos from Eleusis. No one has, however, published so many or so accurate measurements as those contained in the book before us, nor have the measurements given been tabulated so systematically and comprehensively. If the history of Greek sculpture is to be learned from tables of measurements and proportions, the material is here at hand. Too great praise cannot be given to Kalkmann's diligence in measurement and skill in preparing his tables.

Before beginning his detailed examination of individual works, their proportions, and the canons upon which those proportions are based, Kalkmann gives an introduction on the theory of art in antiquity, Vitruvius' statements concerning symmetry and proportions, the divisions of the face given by Vitruvius, Leonardo da Vinci, Dürer, Raphael Mengs, and Schadow, rules for measuring, and examples of mutual agreement of mechanically accurate copies. Under the last heading, he shows that copies of famous statues are substantially of the same size (which is also the size of the original), except when a famous work is reduced in size to a statuette. The mean measurements of extant copies are, therefore, approximately the measurements of the original.

The remainder of the book is divided into two chapters, treating of the upright and lateral dimensions of the face. Kalkmann takes it for granted that some canon is the basis of the proportions of every face in Greek sculpture, and that the progress of Greek sculpture is from canon to canon. This seems to me to be taking for granted what he should, if possible, prove. Moreover, Kalkmann's tables show hardly a single work that corresponds exactly to any one of the canons

which he assumes. This he would explain by supposing that the sculptors took some dimensions from one canon, and others from another, in which case there seems to be no need of assuming a canon at all, inasmuch as there is nothing to hinder a sculptor from taking measurements or proportions directly from living models, without the intervention of canons. It seems hardly probable that the Greek sculptors derived their proportions from canons, unless they regarded those canons as correct, and if a given sculptor regarded a given canon as correct, he would not spoil his work by taking some proportions from another canon. Kalkmann also seems to think that each artist had one canon to which he always adhered. This precludes all possibility of progress in any artist. It also makes it well-nigh impossible to ascribe any two extant works to the same person.

An elaborate review of Kalkmann's work (by Furtwängler) has appeared in the *Berliner Philologische Wochenschrift*, 1894, pp. 1105-1109, and 1139-1144, to which those may refer who wish to read a discussion of details. Kalkmann's theory of canonical proportions forces him to assign the sculptures of Aegina to the sixth century, and those of Olympia to a time "not later than the first decade of the fifth century." He is also compelled to deny that the "Sauroktonos" is the work of Praxiteles, and to place the original of the Apollo of the Belvedere chronologically before the Hermes of Praxiteles. In several other instances works the dates of which are fixed by direct statements of ancient writers, or by the most certain stylistic evidence, are assigned to new dates solely on the evidence of mechanical measurements. It is hardly necessary to say that such results show that proportions cannot alone determine the relative historical positions of works of art. Kalkmann's work is valuable as a careful collection of accurate measurements and the product of much independent investigation. His theory, however, is disproved by the results to which it leads him.

Four plates and twelve illustrations in the text (nearly all by photographic process) add greatly to the value and beauty of the work. Plates I and II represent the Herakles in the Palazzo Altamps at Rome, plate III the boxer from Sorrento in Naples, plate IV a youthful head in the Louvre. Most of the other illustrations represent heads, though the Diomedes in Munich is represented to a point somewhat below the middle, and the Landsdown Herakles at full length.

HAROLD N. FOWLER.

AL. GAYET. *L'Art Arabe*. Bibliothèque de l'Enseignement des Beaux Arts. 8vo, pp. 316. Paris, 1893.

This volume is intended by the author to be more than a handbook of the art of Islam: it is an attempt to set forth not only the

history but especially the philosophy of this art, its innermost character, and its special æsthetic message to the world; such an attempt, in fine, as had not yet been made. In its appreciation of the historic development of Arab art, it is not based upon larger histories, because no such histories have been written as could fill such a position. M. Gayet's book is therefore rather peculiar: it is a pioneer, and hence cannot be as elementary and simply descriptive as handbooks are expected to be. It advances at times new theories and then becomes argumentative and personal in its support of them, and is obliged to have recourse to detailed proof. For example, in the case of the polygonal system of decoration, which is for M. Gayet the keynote to the spiritual meaning of Arab art, there are geometric demonstrations so intricate and detailed as to require the closest expert attention.

Arab art is both a broad and a vague title. Let us see how the author understands it. We feel at every turn that M. Gayet knows and admires Egypt, and has not only become penetrated by its mystic charm and supersensuous fascination, but has gone so far as to regard it as the land in which Islamic art was formed and developed. His point of view is briefly this: Having in a few years conquered almost the entire Orient, the Arabs, themselves without artistic sense, yet feeling the need of a monumental expression for their new civilization, rejected the external, imitative, material Hellenic art of Byzantium and turned to the Coptic art of Egypt for principles, ideas, and forms, because the Oriental mysticism and idealism, in which the Arab participated, were most perfectly embodied in the Christian Copts of Egypt, the land of Philo, of the Gnostics and the Neo-Platonists. Immediately after the conquest the Copts became the artists of the new civilization, and continued to be during the next thousand years, developing the types that ruled the Mohammedan world.

That there were other forms of Islamic art beside the Egyptian M. Gayet grants. Moorish art, Persian art and the art of the Khalifate are the three main divisions that he recognizes; the latter comprising several branches, among which the Egyptian predominates. The writer pushes aside both Moorish and Persian art for reasons that do not seem at all clear, and confines himself to what he calls the art of the Khalifate—in which he presumably includes Syria and Mesopotamia, with its centres at Damascus and Baghdad. Even of this last division he treats fully only the branch that was developed in Egypt, the object of his book being to prove its supremacy, very much as expressible in a proposition like the following: Mohammedan Coptic art = Arab art; Persian and Moorish art are not Coptic; therefore they are not Arabic.

At the very threshold the re-building of the sacred Kaaba of Mecca, just before Mohammed had declared his mission, was under the direction of a Copt. The first mosque was that built by Amru at Fostat, near Alexandria, and it became the type of subsequent mosques, not only in Egypt, but in the rest of the Mohammedan world, a type which was opposed to the Byzantine. The pointed arch and flat roof were its constructive characteristics, and in ground-plan it consisted of a square court with colonnades of unequal width on all sides. Although during this early period Egypt was not the centre of Mohammedan power, the Copts introduced the rules of their architecture throughout the Khalifate (A. D. 661-744). Even the later art of the Khalifs of Baghdad, the famous Harûn-al-Rashîd, and Al-Mamûn (ix cent.), was Coptic, according to M. Gayet. The author's picture of the Islamic art of the first three centuries of the Hejira is completed by an account of the formation of Arab ornament. He here discusses the question of the use of figures. Did Mohammedan art avoid the human and animal forms because these forms were proscribed on religious grounds, or was the avoidance voluntary? The writer's discussion is interesting and vital to the point of view of the book, for he believes that the Oriental artist was not forced into this path, but took it in order to deliver himself from the external and debasing thralldom of the human figure, so precious to Hellenism, and to express his spiritualism, his mystic idealism, in a rhythmic art of intertwining vines, foliage and flowers, of geometric combinations which were at first simple and tentative, but gradually developed in the following period (x-xii cent.) into a wonderful system of polygonal decoration that could respond to every mood of ecstasy and convey every form of internal sensation.

The second great stage in the development of Arab art, and the first that we can study in existing monuments, is that which flourished under the Fatimid dynasty in Egypt, beginning with the foundation of Cairo in 969. In this great artistic era architecture was changed by the partial adoption of the dome and barrel vault in place of the flat roof, and decoration by the development of the polygonal geometric style and its universal application, though floral ornamentation is not entirely abandoned. The short chapter entitled *Le tracé géométrique des polygones*, showing the geometric formulas for the making of every variety of combination of forms, is extremely interesting. This system was applied to marble decorations, mosaic work, stucco, to buildings, to large and small works of industrial art in every branch. It is certainly most characteristic and most interesting. A large part of the book is concerned with its development, its manifold forms and application to various purposes. M. Gayet,

in explaining the philosophy of its forms, insists that very precise sensations or states can be produced according to the principle at the basis of the combination of lines. He says: *Les polygones réguliers exprimeront entre tous des idées nettes, précises, immuables. Celles de ces figures dont le nombre de côtés est pair refléteront des sentiments calmes, graves, empreints d'une sérénité douce; celles dont le nombre de côtés est impair, une mélancholie vague, le trouble, l'incertitude qu'entraîne leur manque de symétrie et d'équilibre; et de la juxtaposition de ces deux formes se dégagera une impression mixte, déterminée par les proportions de leurs combinaisons. Là réside tout le principe de la sensation, obtenue au moyen des entrelacs géométriques. L'entrelacs n'est que l'entre-croisement régulier des lignes tracées dans une figure primaire, un dérivé de cette figure, une superposition de polygones s'entrecoupant dans un assemblage initial. L'expression simple donnée par la forme essentielle s'exalte. Une figure calme aura par l'entrelacs la sensation de l'infini; une figure hésitante, celle d'une tristesse profonde. L'image dérivée de l'assemblage du carré et de l'octogone éveillera l'idée de l'immuabilité éternelle, celle qui a pour base l'heptagone, celle d'un mystère vague et inquiet.*

While acceding fully to the assertion that thoroughly scientific and carefully thought-out principles determined Arab polygonal decoration of all kinds, and no atom of fantasy and chance, one may well hesitate to invest it with so much meaning and psychologic intuition. But I shall avoid criticism until the close of my summary of contents.

Under the last Fatimids and the short Ayoubite dynasty art was no longer so vigorous in Egypt. A great revival and the opening of the third and greatest period in Arab art came with the accession of the Baharite dynasty (1250-1380), when Egypt was once again the centre of Arab civilization. In architecture the great step was the generalization of the use of the dome, which, from being used exclusively over funerary chapels, came to be employed in the mosques, thus leading to a total transformation of architecture. The dome was not spherical, like the Byzantine, but ovoidal in shape, with a grouping of stalactites in the place of pendentives. All the decorative arts blossomed with unparalleled splendor; and mosaics, faïence, stained glass, wood-carving, stucco, all were utilized, mostly under the law of polygonal decoration. In a chapter on the philosophy of Arab art in the xiv century, the writer insists upon its feeling and its spiritual insight, as opposed to the imitative and realistic schools of the West. In a chapter on the role of figures in art, he speaks of the use of the human figure un-realistically, under what he calls the law of polygonal anatomy, and the use of hieratic birds and animals, often pierced with ornamental holes, to show that no imitation, but a purely decorative effect, was intended.

Under the succeeding Bordjite dynasty the architecture remains the same constructively, but it is covered with rich ornamentation in low relief even over the exterior, and all its forms receive greater slenderness and grace, this being especially shown in the development of the minaret. It is noticeable, also, that the polygonal system is largely abandoned in favor of a reversion to the earlier floral designs.

The final chapters deal with the decorative art of the entire period : with mosque furniture, glass, tapestries and stuffs, damascene work, bronzes, arms, wood-inlay, illuminations, calligraphy, *etc.* In all of these branches, with the single exception of damascene work, which is the specialty of Persia, he claims priority or supreme excellence for Egypt. The closing remarks relate to civil architecture, about which there is but little to say.

The illustrations are full and good. A sufficient historic synopsis is prefaced to each stage of the artistic development. The proportion of specific detail to general statement is in the main excellent.

It is nevertheless true that the book stands or falls according to the answer one gives to three crucial questions. This, I am sure, the author would admit. These are :

(1.) Should a handbook of "Arab" art substantially omit the Mohammedan art of every country but Egypt? Yes, says M. Gayet.

(2.) Was Arab art influenced by Byzantine art? No, says M. Gayet; it was intensely and diametrically opposed to it.

(3.) Is the polygonal system of decoration, which is the essence and soul of "Arab" art, the peculiar and exclusive appanage of Egypt? Yes, says M. Gayet; it is the art of a race, not of a religion.

These questions are fundamental because the author's answer to the first determined the scope of his book, that to the second his estimate of the historic position of Arab art, that to the third his view of its inner character and significance. With a writer of a different temperament these questions would not hold so important a place, but M. Gayet is essentially an idealist of a peculiar type, and views art from the psycho-aesthetic standpoint. Let us take up the questions in order. First, why should not the Mohammedan art of Persia or Spain be included in a handbook of Arab art? M. Gayet's answer is that neither Persian nor Moorish art are "Arab," because they are determined by pre-existing formulas, and their individuality is preserved under the Mohammedan domination. For him Coptic art is the only universal characteristic form. He can, however, be convicted out of his own mouth, for he sets out to prove that the Copts already possessed, before the Arab conquest, the essential elements of the style afterwards developed; as, for example, the pointed arch and the germs of polygonal decoration. These, he says, they imposed on

the Arabs. In what way, then, do the Copts stand in a unique position? They also, as well as the Moors and Persians, possessed their "pre-existing formula." That M. Gayet, being especially familiar with Mohammedan Egypt, should wish to write a handbook of its art, well and good, but let him call it by its right title, and not seek to enthrone it in a place that is not its due, under the general title of "Arab art." We still wait for a history and a handbook that shall attempt the difficult task of treating all the branches of Arab art.

In the second place, M. Gayet not only denies that Arab art was influenced by Byzantine art, but attributes to the Copts and Arabs a pronounced opposition and aversion to it. His own contemptuous prejudice against it is vented more than once. The Byzantine hemispherical dome, which to most people has seemed the architectural form that best represents the infinite, is for him oppressive, narrow and material, as compared to the soaring, mystic and spiritual character of the horizontal roof adopted by the Mohammedan Copts! For him the Byzantines were the continuators of ancient Greece, that inferior people of meagre and narrow ideas whose hateful artistic tyranny has been the means of imposing the human figure as the principal object and norm of art. Arab art alone was so idealistic, broad and internal as to discard man and take lines and polygons as its means of expression.

Being endowed with so great a hatred of Byzantine art, M. Gayet easily disposes of its generally received claim to an influence on the formation of Arab art. He cannot in certain cases overlook the fact that Byzantine artists were sent to the Khalifs from Constantinople. In the first instance which he cites of a Coptic artist employed in Arabia, namely the rebuilding of the Kaaba of Mecca shortly before Mohammed's Flight to Medina, he commits a curious piece of suppression. He notes the Copt who was captured with the vessel carrying architectural material, but he omits to mention that there were two artists, the other being a *Byzantine Greek*. In the case of the rebuilding of the mosque at Mecca under El-Walid, the Greek Emperor sent, according to Es-Sanhûdi, eighty artists, of whom forty were Greeks and forty Copts: by a piece of specious but groundless reasoning M. Gayet concludes that the Copts were the only artists that really constructed the mosque. Besides, it seems as if the presence of any Copts should be regarded as doubtful, for all the artists came, apparently, from Constantinople, and if there were Copts among them they must have been of those who practised the Byzantine style. It is in harmony with his system that M. Gayet should omit the description of the early mosques and other Arab buildings which are examples of Byzantine influence or are known to have

been built by Byzantine artists—such as the mosque of Damascus and those of El-Aksa and of Omar at Jerusalem; and also that he should disregard the evident fact—proved by many Arabic texts—that the rich mosaic and marble decorations of the Arab mosques and palaces was due largely to Byzantine influence, and often to the hand of Byzantine artists.

Finally, the third question is in regard to the polygonal system of decoration, so often referred to. It is true that in Egypt this system reached an unsurpassed degree of perfection, elaboration and universal application. For M. Gayet, "the heart of a race beats" in it; it is "one of the strongest expressions of the human mind," and may be considered as "the essential character of all Islamic art." I shall not attempt here to do more than state: (1) that Byzantine art may dispute with Mohammedan the claim to a prior development of the polygonal system; (2) that hundreds of Byzantine and Italian monuments dating between the x and xiii centuries—which is the very period of the *earliest* Mohammedan examples—show a development of the polygonal system as splendid, as intricate and as scientific as the Egyptian. The mosaic decoration of the pulpits, choir-screens, paschal candlesticks, altar-tabernacles and sepulchral monuments of the Sicilian, Neapolitan and Roman schools cannot be surpassed in Egypt. This I can safely say, because of this branch of polygonal study I have made a specialty.

This being the case, we must admit that Greeks and Italians understood the theory and practice of the polygonal system, and M. Gayet's assertion that it represents the soul of a special race or the essence of a special art is untenable.

A few words of criticism remain. At the very beginning of his book M. Gayet makes the usual statement of the uninitiated—that the Arabs as a whole had always been nomads, and were never influenced by any other civilization. This is quite incorrect. Several dynasties of Arab kings are now known, from hundreds of inscriptions, and we can date back Arab civilization two thousand years *b. c.* Arabs conquered and settled Abyssinia. Even in the period immediately preceding Mohammed, when the nomadic element had become predominant, there was still the province of Yemen and there were still the Arab Kingdoms of the borders of Persia and Palestine. The pre-Islamic poems and legends show the strong influence of Persia, of the Jews and Syrians. For the period immediately following the conquest, M. Gayet minimises the role of other nations beside the Copts. No orientalist can be in any doubt that the Byzantino-Syrian and the Persian were the two influences that combined with Arab characteristics to form Mahommedan civilization, while it is necessary

to concede a preponderating influence to the Copts in the artistic field of Egypt, although even in Egypt an unprejudiced eye will attribute to the Byzantines a large share in the formation of the decorative style. At the same time we will grant that the Coptic artists, with an art partly original and partly Byzantine, exercised a strong influence at times outside of Egypt. I will even call M. Gayet's attention to an extremely important and early instance of Egyptian artistic influence in Palestine, which seems to have escaped his attention. The great Aksa mosque at Jerusalem was restored in A. H. 425-27 (A. D. 1032-5), by the architect Abdallah ibn el Hasan, of Cairo, by order of the Egyptian Fatimid Khalif Edh-Dhahar. The great inscription recording this fact was copied in the following century. See GUY LE STRANGE in *Pal. Expl.*, Oct. 1888, and in his *Palestine Under the Moslems*, p. 102.

With the exceptions above discussed, M. Gayet's book is a safe one to read, and is always interesting. We hope that many points which it was impossible for him to treat or prove in so limited a compass will receive ample treatment in some future book which should include Christian Coptic architecture and decoration, and should treat more fully of the origins of polygony, which here remain obscure.

A. L. FROTHINGHAM, JR.

GIUSEPPE MERZARIO. *I Maestri Comacini. Storia artistica di mille duecento anni (600-1800)*. 2 vols. 8vo. Milan, 1893. Pp. xxvii-696 and xxiii-626.

The artists that give its title to this book are supposed to have originally formed an artistic guild on an island in Lake Como, where they sought refuge, in about 600 A. D., from the Lombard invasion. This association grew in importance and apparently flourished through the greater part of the Middle Ages, its members, as was the wont of mediæval artists, often travelling to other provinces. They were mainly architects, sometimes sculptors, seldom painters.

But this book does not confine itself, as the ordinary reader might expect, to the history of this phase of the art of Northern Italy.

The author's enthusiasm for his subject, combined with his want of discrimination in matters of style, and his fondness for strained and impossible deductions drawn to suit his purpose, make him include in his book the greater part of Italian art and a considerable section of all European art, which he claims to be by the hand or under the influence of these "Maestri Comacini." Nothing escapes his robust appetite and power of assimilation.

Such a book would not deserve mention if it were not for the fact that it gives proof of an immense amount of industry, contains much information that appears to be useful, and often wears an air of plausibility that might deceive the unwary. It is certain that considerable information could be exhumed from its fourteen hundred pages; but it would be impossible to accept anything without verification. Besides, a large part of the text is quite irrelevant, being given up to oratorical display and sophomoric digressions on the culture, geography and history of various European countries. So there is still room for a suitable treatment of the same theme.

A few examples of the author's methods will suffice to show how he manages to include so many different schools and buildings under this Northern School. First, the method of *assumption*. On page 97, vol. I, the famous monastery of Subiaco is mentioned, the first founded by St. Benedict. Here, says he, toward the year 1000, "Lombard artists worked," and here is the first instance of the pointed arch. No proof or even authority is given for the assertion of the presence of Lombard artists: and none could have been given. It is a mere fancy of his brain. The second assertion, about the pointed arch at Subiaco, leads him to claim for his Lombards the priority in the development of Gothic architecture. None but a man who uses pre-historic authorities, as he does, would cling to the fallacy that the use of the pointed arch is in the remotest way necessarily connected with the Gothic style, and especially so in the case of these arches at Subiaco, which are blind arcades.

Another method is what I should not, in most writers, hesitate to call *suppressio veri*, the method by suppression of facts. An example of this is in connection with the other great Benedictine art centre, Monte Cassino. All histories and handbooks mention the fact that shortly after the middle of the XI century Abbot Desiderius sent to Constantinople for artists to decorate the monastery which he was rebuilding. The passage in the contemporary historian of the monastery, Leo of Ostia, is one of the veriest commonplaces of art-history. And yet Merzario says (I, p. 105) that Leo of Ostia states that the artists were Lombard and Amalphitan, not Greek!

The third method is that of deductions from artistic style. The value of the author's judgment in this matter may be more easily imagined than described. One instance will suffice. St. Mark's of Venice one would fancy to be the one structure in Italy that stood firmly in the Byzantine column, without a point of similarity to Lombard structures, except in some very minor points of added decoration. But Merzario sees in the *basilical* ground-plan (it is a Greek cross), in the masonry (whatever he means by that), in certain sculp-

tures, certain emblems, certain arcades, the distinct proof of its construction by Lombards.

A fourth method is assumptive deduction. Here is an instance of it. The Roman artists of the Middle Ages, when they sign their works, often call themselves *Romans*. Now, no native artist of any place affixes its name to his own: consequently these artists who call themselves Roman must be foreigners who have received Roman citizenship: being foreigners they must be, of course, Lombards and "Maestri Comacini." Apparently Merzario is ignorant of two facts: (1) The Roman artists sign themselves after this fashion mainly when working outside of the city; (2) the use of the name of birthplace was a very common one among all classes of Italian artists. But without signaling any further aberrations, let us draw the veil.

A. L. F., JR.

WILLIAM DURANDUS. *The Symbolism of Churches and Church Ornaments*. A translation of the first book of the *Rationale divinatorum officiorum*. With an introductory essay and notes by the Rev. J. M. Neale and B. Webb. 8vo., pp. cxxxv-209.

Symbolism is the spirit of Christian art, and so it is the part of it most elusive and difficult of exact formulation. We live in an age so lacking in sympathy with and comprehension of such symbolism that, with those of us who have some historic appreciation of its reality in the past, there is an inherent distrust of modern interpretations of this symbolism as unlikely to grasp the heart of the matter. But we welcome the words of a man like Durandus, because he was a man of the age of symbolism, and of its last period when encyclopædic statements of accumulated traditions were composed in so masterly a fashion in every branch of knowledge. He wrote at the close of the XIII century his work entitled *Rationale divinatorum officiorum*, which soon became one of the most popular of books, and had the honor of being the first secular book ever printed, the *editio princeps* being issued from the press of Furst in 1459. The *Rationale* is a treatise relating to church organization and service, describing the church building and decoration and their symbolism, ecclesiastical dignitaries connected with the church, the sacred vestments, the mass in all its parts, the services of the different parts of the day, and for every day in the year, and for every special ceremony or festival.

Guillaume Durand was a native of Provence, born about the year 1220. His active life was passed, however, in Italy. He attained to fame as teacher of canon law at Modena, and was successively chaplain of Pope Clement IV, auditor of the Sacred Palace, legate to Gregory X, captain of the Papal forces, and finally non-resident bishop

of Mende, refusing the archbishopric of Ravenna. He died at Rome in 1296. His high official position at the Papal court, his versatility, force of character and clearness of intellect, all combine to give authority to what he says. We are here concerned only with that part of his work which treats specifically of monumental and artistic symbolism; that is, the first book, which is here translated.

The translation is preceded by an introduction from the pen of the two learned English Catholic liturgists, Neale and Webb, written in 1842, and suffering from the limitations of that date. For, while unsurpassed in the field of liturgy, these writers show an insufficient acquaintance with the monuments, especially those outside of Great Britain. To be thoroughly well rounded, such a treatise on church symbolism should involve a thorough knowledge not only of texts but of actual monumental history. Nevertheless, the essay is in many ways admirable. It is a warm and able exposition of the traditional Catholic point of view, and should be read by all who have charge of church building in our times to counteract the prevalent utilitarianism, and at times, perhaps, to prevent the fantasy of artists or clergy invading a domain that should be free from individual innovations. Church symbolism is something that is consecrated by the thought and worship of centuries of Christian life and should not be at the mercy of modern untraditional fantasy. If so little sacredness attaches to our Protestant churches, it is largely because they do not stir our religious imagination by any such symbolism, but are nearly always utilitarian: and the two English writers, in a somewhat fierce and rough postscript, call attention to this, and draw a contrasting picture between an ordinary Protestant church and a cathedral. The arguments that they use in favor of symbolism in part A of their treatise are (1) *a priori*, (2) analogical, (3) philosophical, (4) analytical, and (5) inductive. In part B they give examples of symbolism under classified heads, and they close by a sketch of the history of symbolism in England.

However interesting this part of the book is, the translation of Durand's first book is far more so. Here we have, not speculations by the hands of an outsider, but statements of actual symbolic beliefs then current and influencing men's minds and actions daily. By comparing Durand's statements with those of other and older writers, we can see how they are based in most cases upon a long tradition, going back, in some cases, as far as the early Fathers of the Church. Almost every statement in Durand can be controlled and verified by references to church writers, to the *Ordo Romanus* and other church manuals, as well as to the other treatises of a similar description, but less full, such as that by Richard of St. Victor, over a century earlier, which is translated in an appendix to this book.

As it is impossible to give any idea of the contents of Durand's treatise, we can only strongly recommend its perusal.

A. L. F., Jr.

ETIENNE BEISSEL, S. J. *Vaticanische Miniaturen=Miniatures choisies de la bibliothèque du Vatican.* With 30 phototype plates. Freiburg im Breisgau, 1893, Herder.

Father Beissel has done a great service by the publication of this volume. In it he reproduces in phototype plates a good selection from the illuminated manuscripts in the Vatican collection. These examples are classified under five heads:

(I) Classic Style, four plates; (II) Western Style, VII-XI cent.; four plates; (III) Greek mediæval illuminations, eight plates; (IV) Illuminations between the XI and XIV cent. in the West, seven plates; (V) The XV and XVI centuries in the West. The plates are either full-size or but slightly reduced, and are for this reason unusually valuable. The letter-press consists of brief introductory remarks, a description of the manuscripts whose illuminations are reproduced, and a descriptive list of the principal illuminations in all these manuscripts beside that selected for illustration. The author is careful to note the colors, in order partially to supply their lack in the plates. His work is scientific, sober and accurate, and the numerous references show ample acquaintance with the literature of the subject. A judicious reticence is shown in regard to dates of manuscripts, and where there is a controversy the different opinions are quoted. In a few cases I believe the date assigned to be rather early. The beautiful illumination (pl. XXI) in the Decretals (Cod. Vat. Pal. lat. 629) belongs to the XIV rather than to the XIII cent., and the style of the plate (pl. XV) from the Greek homilies (Cod. Vat. Graec. 1162) seems later than the XI century. There is also unusual interest in pl. VIII taken from a book of sermons written at Monte Cassino in the XI century (Cod. Vat. lat. 1202), because this manuscript and its compeers (cf. Tosti, *Paleografia artistica di Monte Cassino: Longobardo-Cassinense*) shows clearly the very hand or at least the style of the Byzantine artists called to Monte Cassino under Desiderius. This is not mentioned by the author; and as it is called a Lombard manuscript, we are left to infer that he regards its illuminations as belonging to that school. The portrait of Desiderius himself is given on fol. 2, and this MS. is perhaps the most perfect of its class.

We can in closing only express our thanks and the hope that other collections of MSS. may be illustrated as efficiently, so as to give us in time the elements of a history of illumination.

A. L. F., Jr.

ARCHÆOLOGICAL NEWS.

SUMMARY OF RECENT DISCOVERIES AND INVESTIGATIONS.

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EUROPE.

GREECE.

REPORTS ON INVESTIGATIONS IN GREECE.—Prof. E. A. Gardner gives in the *Journ. of Hellenic Studies* (1894, vol. xiv, 1) a report on excavations in Greece in 1893-4. Under Athens he relates the investigations in connection with the Enneakrounos (?) aqueduct; the building of the Iobakchoi; the wine-press, the columns of the Stoa of Eumenes in front of the theatre of Dionysos; the metope from a sepulchral monument, etc. Then come the discoveries by the French at Delphi and at Delos, by the Germans at the theatres at Magnesia and Tralles, by the Americans at the Argive Heraion and at Eretria, by the English at Abai, by the Greek Society at Mykenai, Thorikos, Eleusis and Epidauros, by the French on the island of Gha, in Lake Kopais, etc.

A report on recent excavations in Greek lands and investigations in Greek archæology is made by M. Reinach in the *Revue Archéologique* for July-August, 1894.

ARCHÆOLOGICAL SOCIETY IN BERLIN.—Reports of meetings of the Archæological Society at Berlin are contained in the *Archæologischer Anzeiger*, 1894, pp. 72-88. Besides the conduct of business, the discussion of new books, etc., addresses were delivered as follows: FEBRUARY; *Winnefeld*, on Hadrian's villa at Tivoli (cut); *von Fritze* on a fragment of an alabaster basin from Naukratis (cut), described by Arthur Smith, Catalogue of Archaic Greek Sculpture, No. 116; *Weil*, on the account given in Aristotle's *Ἀθηναίων Πολιτεία* of Attic coinage. MARCH; *Kekulé*, on the excavations in Magnesia on the Maeander. The temple of Artemis Leukophryene, the Agora and neighboring buildings have been excavated. An elaborate report is to be prepared; *Kern*, on the temple of Zeus Sosipolis on the Agora at Magnesia. APRIL; *R. Heyne*, on the Artemision at Magnesia; *M. Rubensohn*, on

the five epigrams in the anthology on the monument of Themistokles at Magnesia; *Adler*, on the great altar of Zeus at Olympia. *MAY*; *Diels*, on the fragments of hymns to Apollon, with musical notes, found at Delphi; *Brueckner*, on the development of Trojan Ceramics, and on an inscription from the architrave of Athena Ilias; *Winter*, on a portrait head in the Louvre (Galerie Mollien, No. 3000), probably Mithradates vi Eupator; *Pomtow* on the hymn to Apollon, saying that the character of the letters shows that it is not earlier than 200 B. C.

The *Anzeiger*, pp. 122-125, reports the *June* meeting. *Kern* spoke on Artemis Leukophryene in connexion with an inscription from Magnesia; *Kalkmann* on sculptures found at Delphi; *Pomtow* on inscriptions from Delphi; *Hüller v. Gaertringen* on a votive offering of an astronomer from Rhodes.

SACRIFICIAL FOOD.—In the *Jahrbuch Arch. Inst.* (1894, p. 114-117), P. Stengel, in an article entitled *Σπλάγγνα*, maintains that the liver, kidneys, etc., were not merely tasted at sacrifices, but were eaten, though chiefly by servants, as the masters preferred the meat.

GREEK EPONYMOUS MAGISTRATES BEFORE THE ROMAN CONQUEST.—In the *Studi Storici*, 1894, No. 2, A. Pirro studies how there arose in the Greek states the custom of assigning a date to public or private, to religious or secular, documents by means of an eponym. Its origin is extremely obscure and appears, according to the writer, to be an imitation of an Oriental custom, as exemplified in Assyria as early as the tenth century B. C. He compares as analogous institutions the *kosmetes* of Crete and the Spartan ephors, and shows how the eponymous Ephors of Thera, Kyrene and Heraklea were derived from Sparta. The writer then studies Corinth and its colony Megara, where the eponym originally had the title of *Βασιλεύς*; the title being changed afterwards to that of *πρύτανις*, as shown by the Corinthian colonies of Anaktoron and Korkyra. The prytanis is also the eponym at Kolophon, Teos, Pergamon, Gambreos (?), the Lesbian cities, Chios, Rhegion. The eponymous magistrate at Athens, the Archon, is too well known to require comment. The Archon was also the Eponym in Doris, Lokris, Phokis, the Boiotian League, Chios, Nikaia, Andros, Keos, Tenos, Delos, Paros, Thasos, Euboea: but in many cases the eponym of the league must be distinguished from the eponym of each city. At Kyzikos the hipparch is eponym. At Ezio(?), Samos, Naxos, Astypalaia, Nisyros, Knidos, the eponym is the demiurge, *δημιουργός*. At Iasos, Mylasa, Aphrodisias, Miletos, Nysa, Priene, Smyrna, the *στεφανηφόρος* is the eponym. This fact is probably due to the influence of Miletos in Karia. To be noticed here is the strategos, *στρατηγός*, the head of the *κοινόν* of the Aitolians, Phokaians, Achaïans, Epirotes, Thessalians. The eponym at Gela was the hierapoulos (*ιεράπολος*); at

its colony Agrigentum, and at Segesta and Melita it was the hierothutes (ιεροθύτης); at Halikarnassos, New-Ilion, Olbia, Tomi, Oropos, Mantinea, Tegea, Epidauros, Rhodes, Katana, it was the hiererus (ιερεύς); at Argos the hiereia (ιέρεια); at Dimê in Achaia the theokolos (θεοκόλος), at Syracuse the amphipholos (ἀμφίπολος), in Lykia the archi-hiererus (ἀρχιερεύς); at Eretria the hieropoios (ιεροποιός).

At the close of the article is a table of magistrates arranged in the following geographical order: Lykia, Karia, Lydia, Mysia, Bithynia, Pontus, Thrace, Thessaly, Epirus, Akarnania, Aitolia, Doris, Lokris, Phokis, Boiotia, Attika (ref. to C I G), Megaris, Argolis, Achaia, Arkadia, Sparta (ref. to C I G), Greek islands (Thasos, Lesbos, Chios, Samos, Kalymna, Kos, Nisiros, Rhodes, Astypalaia, Andros, Keos, Tenos, Delos, Paros, Naxos, Thera, Euboea, Krete, Korkyra, Melita), Sicily (Gela, Akragas, Segesta, Tauromenion, Katana, Syracuse), Magna Graecia (Rhegion, Heraklea).

THE GORGONEION AND ITS HISTORY.—In the *Ἐφημερίς Ἀρχαιολογική*, 1894, pp. 99–112 (pl. 4) A. Th. Philadelphus publishes *The Gorgoneion in the Mosaic from the Peiraieus*. The Gorgoneion is in the centre of a square mosaic, the remainder of which consists of linear patterns, triangles, and spirals, with an ivy leaf in each corner. The oriental origin and high antiquity of the Gorgoneion are discussed. The word is connected with Semitic *Golgo* (cf. Golgotha, the place of a skull). Three classes of Gorgoneia are distinguished. First the primitive, hideous apotropaion; second (in the fifth century B. C.) heads still retaining some of the early features, but already beautiful, and last, the pathetic type, dating from the Macedonian times. This mosaic belongs to the last class, and is doubtless a copy of some painting.

HERAKLES AND THE HORNED HIND.—At a meeting of the Cambridge Philological Society Prof. Ridgeway discussed the legend of Herakles and the Hind with the golden horns (Pindar, *Ol.* iii. 31). Aristotle (*Poetics* xxv. 5) refers to the blunder made by some poets, who did not know that female deer have no horns (ὅτι θήλεια ἑλαφος κέρατα οὐκ ἔχει). Scholars are right in seeing an allusion to Pindar, who (*Ol.* iii. 31), speaking of the journey of Herakles to the land of the Hyperboreans in search of the golden-horned hind, uses the phrase χρυσόκερων ἑλαφον θήλειαν. On this same journey he reached the "shady sources of the Ister" (iii. 18). But Pindar must share the censure with Euripides, who, in the chorus of the *Hercules Furens*, in which he celebrates the Labors of Herakles, says (375–6):

τὴν τε χρυσοκέρανον | δόρκαν ποικιλόνοτον.

Moreover, sculptors and engravers are equally to be blamed. For, on certain coins of Abdera of the fourth century B. C., we find Artemis accompanied by a horned deer, commonly described as a stag (Gard-

ner, *Types*, Pl. iii. 31). Again, all are familiar with the famous statue in the Louvre, commonly known as "Diane à la biche." Here the hind is adorned with antlers. Again, there are at least two gems in the British Museum (763, 765) which show the goddess accompanied by a horned deer. Are all the poets and artists wrong, or does Aristotle err in laying down as universal the absence of horns in female deer? The latter seems to be the true solution. In one species only of all the cervine genus is the female equipped with antlers. The reindeer of Northern Asia and Europe is the exception. Pindar makes the Far North the scene of the quest of Herakles; Euripides indicates the same; and in Roman times there was a popular belief that the hero had visited North Germany ("fuisse apud eos [sc. Germanos] et Herculem memorant," Tac. *Germ.* 2). The capture of a timid deer would have been a mean task for the slayer of the Nemean lion and the Lernean hydra, but the point of the legend lies in the difficulty of obtaining so rare a creature as a horned hind. Occasionally pieces of reindeer horn have been found among the multitudinous antlers and bones of other deer in the lake dwellings of Switzerland and Bavaria, showing that, about 1200—800 B. C., occasional specimens reached Central Europe. It is affirmed that the reindeer was still a lingerer in North Germany in Roman times. If Baltic amber reached Mykenai 1400—1200 B. C., and Homer had a dim notion of a land where the day was very long and the night very short, we need not wonder if the early Greeks had heard a rumor of a strange kind of deer, the females of which were horned.—*Academy*, Nov. 17.

THE ILIAN TABLETS.—In the *Jahrbuch Arch. Inst.*, 1894, pp. 136-165, A. Brüning writes of *The Artistic Originals of the Ilian Tablets* (39 cuts). The reliefs published under the title "Griechische Bilderchroniken," by Jahn and Michaelis and other similar reliefs are shown to agree accurately with the so-called *Ilias Latina*. Fifteen scenes of the Ilian Tablets are represented upon works of art which are evidently derived from great works. The mad Aias may be derived from the Aias of Timomachos, and the flight of Aeneas may go back to Arkesilaos. These scenes, and perhaps some others, are derived from separate works of art, but the greater part of other compositions probably come from cycles or series of paintings, such as are known to have existed in Rome.

LATER ATTIC VASE-PAINTING.—In the *Jahrbuch Arch. Inst.*, 1894, pp. 57-82, A. Milchhöfer writes of *the later Attic vase-painting* (2 cuts). The Attic aryballoi are developed from the lekythos. A list of fourteen earlier aryballoi and thirty later ones is given. Six of the latter are adorned with reliefs. Lesser divisions are connected with the names of various artists. The influence of sculpture upon vase-painting is

shown to be far less than that of monumental painting. Polygnotos probably came to Athens soon after the Persian wars. His influence is seen in vase paintings about 470 B. C. The later series (*jüngere Reihe*) of the fine style (*schöner Styl*) begins soon after 450 B. C. The Nike-balustrade is later than many works which have been regarded as imitations of it. The invention of many well-known *motifs* belongs to the great painters, not to sculptors.

THE WRESTLERS IN FLORENCE.—In the *Jahrbuch Arch. Inst.*, 1894, pp. 119–126, B. Graef discusses the *Heads of the Florentine group of wrestlers*. The head of the upper wrestler is a modern copy of the head of the son of Niobe No. 253 (Dütschke). This head belongs to the lower, *i. e.*, the defeated wrestler, while the head now placed on the neck of the defeated wrestler belongs to the victor. The original of the group of wrestlers appears to have continued the art of the fourth century B. C., as it may have existed outside of Attica, free from the influence of Lysippos, dependent upon the traditions of the art of Skopas, which are, however, not exaggerated, as in Pergamon, but softened by faithful observation of nature.

AMORGOS.—Dr. Tsoundas has just finished his excavations in the prehistoric necropolis of the island of Amorgos, and the results are of great importance for the study of the Mycenæan and pre-Mycenæan or island age. About twenty *tholos* tombs were discovered containing grave-goods, consisting of terracotta vases, lance-heads, fictile figurines and one figurine in marble of very ancient and pre-Hellenic character. It is thought that the age of these various objects is not more recent than the beginning of the second millennium B. C.—*Athenæum*, Nov. 24.

ATHENS.—**ENNEAKROUNOS AND KALLIRHOË.**—In the *Ἐφημερίς Ἀρχαιολογική*, 1894, pp. 1–10, W. Dörpfeld writes of *Enneakrounos and Kallirhoë*. In reply to G. Nikolaïdes (*Ἐφ. Ἀρχ.*, 1893, p. 179–186), he maintains that Enneakrounos was not in the bed of the Ilissos, but near the Agora. In early times a spring on the Pnyx hill was called Kallirhoë, but this name is applied by Plato and later writers to the spring in the bed of the Ilissos.

EXCAVATIONS NEAR THE PNYX AND AREIOPAGOS.—The excavations of the past year in the neighborhood of the Pnyx and the Areiopagos, though they did not furnish, as Prof. Dörpfeld had hoped, absolutely convincing proof that the spring Enneakrounos was in this region, did prove that the ground in this part of the city is full of ruins and antiquities. It showed itself so promising a field for excavations that on the recommendation of Dr. Dörpfeld the Greek government has expropriated the land. Mr. Gardner says: "It will thus be possible to clear it entirely and to remove the earth to a distance, instead

of merely turning it over—a necessity which has hitherto cramped the work. Excavations are promised here on a large scale . . and it can hardly be doubted that when all the region in front of the Akropolis, and between the Areiopagos and the Pnyx, is laid bare, some of the most difficult problems of Athenian topography will find their solution, and many ancient buildings or precincts, hitherto known only by name, will be identified."

RESTORATION OF THE PARTHENON.—The committee of architects and engineers appointed to examine into the damage done to the Parthenon by the earthquake of last spring, had scaffolding erected in order to secure a thorough examination. No great damage was found, but certain recommendations were made to ensure stability in view of the gradual shifting of some column drums and a slight dislocation of the west front.

RECONSTRUCTION OF EAST PEDIMENT OF PARTHENON.—In the *Jahrbuch Arch. Inst.*, 1894, p. 83-87, J. Six publishes (cut) a reconstruction of the central group of the Eastern Pediment of the Parthenon. The positions and measurements of the figures are regulated by the traces on the slabs of the pediment. The reconstruction resembles the group on the Madrid puteal,—Zeus seated in the centre, facing the right, behind him Hephaistos, before him Athena, with a flying Nike placing a wreath upon Athena's head.

INSCRIPTION OF THE IOBAKCHOI.—In the *Mittheil. Arch. Athen.* (1894, pp. 248-282), S. Wide publishes and discusses the *Inscription of the Iobakchoi*, discovered in February, 1894, between the Pnyx and Areiopagos. The date of the inscription is probably about the middle of the third century A. D. It contains a report of a meeting, followed by the statutes of the thiasos of the Iobakchoi, giving rules for admission, monthly dues, treatment of misconduct, etc. Officers were the *ιερείς*, *ἀνθιερείς*, *ἀρχιβακχος*, *ταμίας*, *γραμματεὺς*, *πρόεδρος*, and perhaps *βουκολικός*. The servants are called *ἱπποὶ*. The official name of the thiasos was *Βακχείον*. At the meetings there were dramatic representations. In these the Eleusinian deities appear. This points to a connection with the cult of Dionysos ἐν Λίμναις.

HELIAST TABLETS.—In the *Mittheil. Arch. Athen.* (1894, pp. 203-211), S. Bruck writes on the *Athenian Heliaist Tablets*. Thirty-two of these tickets are described and twenty published in facsimile. Of these, ten are here published for the first time.

MT. ATHOS.—The monks of Mt. Athos have undertaken to produce a pictorial work illustrating the history, architecture, art, and social life of their unique settlement. All the monasteries have combined for this purpose, but the editor and author of the accompanying (Greek) text will be the monk George of St. Paul's Monastery, whose

intelligence and courtesy are well known to the few privileged travellers who have visited the Sacred Mount. The book will be published at Constantinople. There will be 130 phototypes and some woodcuts, with 150 pages of quarto text. The paintings and the architecture will be adequately given, and will be of the highest interest.—*Athen.*, Nov. 18.

DAPHNE.—**MOsaICS.**—In the *Ἐφημερίς Ἀρχαιολογική*, 1894, pp. 111-122 (Pl. 5), G. Millet discusses *Mosaics of the Church at Daphnion*, and publishes one representing the crucifixion. The Saviour is represented as a corpse, blood mixed with water flowing from hands, feet and side. Below the cross is a skull, above it two angels. At the right stands St. John the Evangelist, at the left the Virgin. Other representations of the crucifixion are discussed, and the date reached for this mosaic is the first year of the XI century. The figures show the desire for gracefulness and slenderness which distinguishes the work of that time from earlier work.

DELOS.—**THEATRE.**—We quote the following summary by Prof. Gardner of the results of the excavation of the theatre, by M. Chamonard, of the French School: "The plan of the stage buildings is a very peculiar one. They consist of a central structure of two or more stories, surrounded by a colonnade which supported a platform twelve feet high all round; on the front this was finished in the usual manner as a proscenium, at the sides and back it was rougher, having merely square pillars instead of the usual columns and pinakes. Fortunately an inscription has been found relating to this structure, which is of the highest importance for the decision of the disputed question whether the actors had their place on the top of the proscenium or in front of it. In the inscription—which was quoted by M. Homolle at an open meeting of the French School—the proscenium is identified with the *λογεῖον*. This finally disposes of the assertion that the proscenium in the Greek theatre was not the *λογεῖον*. The only course open to those who maintain Dr. Dörpfeld's view is to say that *λογεῖον* does not mean the place from which the actors usually spoke; but considering the use which has hitherto been made of the term *λογεῖον* in the discussion, such a contention will not be easy to establish."

The theatre was the subject of two addresses at the February meeting of the French School at Athens, one by M. Homolle and one by Dr. Dörpfeld. M. Homolle began by referring to the especial interest of this monument because of its being dated, never having been made over and being commented and documented by a series of contemporary inscriptions found at Delos. These texts are to be found in the accounts of the hieropi who had charge of all the work carried

on in this monument as well as in all the other sacred or public buildings. The earliest belong to the time when the construction of the theatre was not yet completed; the others show its history during the course of about a hundred years. The following is an indication of the references in their chronological order, they being published in the *Archives de l'Intendance Sacrée à Delos*, to which work references are here given:

1) c. 290 B. c., XI: 2) 282 B. c., XVII: 3) 281 B. c., XVIII: 4) 279 B. c., XIX (Cf. *Bull. Corr. Hell.*, XIV, pp. 393, 401): 5) 276 B. c., XXIII: 6) 274 B. c., new text: 7) 269 B. c., XXXIV: 8) 250 B. c., XLVII: 9) 246 B. c., XLVIII: 10) 250-240 B. c., L: 11) 180 B. c., LXXXVII: 12) 170 B. c., LXXXV.

M. Homolle gives the texts in full in most cases. From them he concludes that the main structure was completed at the commencement of the third century, and that its plan is therefore that of the Greek theatre of the fourth century. Except for the ill-defined work on the periphery (*περιοικοδομία*), all the contracts made by the hieropi relate to the decoration, the marble revetment of the steps, etc. The work is divided into sections of between 100 and 200 feet, which are allotted in greater or lesser number, according to the resources of the year. Great activity appears to have reigned between 276 and 246. It then ceases, and we may suppose the building to be completed, for subsequent expenses relate solely to representations. The texts furnish a long list of terms descriptive of the various parts of the theatre and aid in its ideal reconstruction, and they also help in forming an idea of the stage apparatus.

The ruins are divided, as the inscriptions indicate, into four groups: the theatre or cavea, the orchestra, the stage, and the cisterns.

The orchestra is the essential part: it forms a circle whose circumference determines the arrangement of the theatre and the site of the stage, the first following the half of the circumference itself, the second being tangent to the opposite side of the circle. The orchestra is surrounded by a drain prolonged at its two ends toward the cisterns. The theatre follows the circumference of the orchestra as far as its diameter, and as far beyond as to form five-eighths of the circle. Its construction is in part artificial, and along almost its entire periphery it is sustained by marble walls (*περιοικοδομία*) of irregular courses. At three-fifths of its height it is divided by a passage which surrounds it (*diódos*). The upper part (*ἐπιθήραρον*) is not concentric to the lower (*θήραρον*), nor arranged on the same axis; it is bordered above by a *chemin de ronde* with a hooded parapet. Eight staircases symmetrically arranged give access to the rows of seats from the orchestra as

far as the *διάζωμα*, dividing the *cavea* into six equal wedge-shaped sections. Above, the staircases were double in number.

The stage is a large rectangular hall, without trace of inner divisions, with three doors in the side facing the theatre and one on the opposite side. It is surrounded on all four sides by a portico which impinges 3.50 m. on the circle to which the stage is tangent, and follows the lines of a square inscribed parallel to the tangent in the circle, and whose two opposite angles mark the site of two of the middle staircases of the *cavea*. The portico was decorated with doric semi-columns, and was about three m. high. Before it were placed statues (Atlantes, Philetairos of Pergamon, Ergeas). The portico turns at the sides, so as to form, with the theatre walls, the *parados*. In the spaces between the pillars of the portico decorative panels could be slipped.

This construction is like an immense platform with a hall in the centre for massing the actors, for the entrances and exits, and the machinery. The upper story and the basement are similarly arranged and can be similarly decorated. The first is called the *λογεῖον*.

The cisterns are divided into eight compartments.

M. Homolle closed by saying that the theatre of Delos corresponds exactly to the rules laid down by Vitruvius. All the arrangements are derived, in fact, from a circle in which four squares are inscribed: the circle marked the limit of the theatre and that of the stage *scenae frons*; the base of one of the squares indicates the proscenion (*frons proscenii*); to the angles of the four squares correspond the ends of the *cavea* (*cornua hemicyclii*) and the eight staircases that divide it into six *cunei*. The proscenium or platform (*pulpitum*) is called also *λογεῖον*, the place where the actors acted, at a height of 10 to 12 feet. There is the same correctness in the measurements of details, such as benches, passages, etc. Vitruvius, therefore, had a thorough knowledge of the Greek theatre, and if he was mistaken, was so only in the interpretation of the use of each part.

Prof. Dörpfeld then, at M. Homolle's request, explained his system regarding the construction of Greek theatres, adding that he found in the theatre of Delos a new and striking confirmation of it. Vitruvius, never having seen any Greek theatres, and knowing them only by plans or descriptions, thought there was an essential difference between them and the Roman, whereas the one is derived directly from the other. The actors always stood in the orchestra, in front of the proscenium which carried the scenery, but was not also roomy enough for the actors. The *λογεῖον* = proscenium was but seldom occupied by actors, and only by those who represented the gods, as is shown by its later title, *θεολογεῖον*.

The stage always represented the palace: that of Delos, with its continuous portico, answers exactly to this conception: the scenery was placed in front and around it, but not on it, because it was itself part of the scenery. The actors and the chorus moved in front of the portico and not above it, which would be equivalent to placing them, so to speak, on the first story of the house.—*Bull. Corr. Hellen.*, 1894, pp. 161–68.

Commercial Quarter and Docks.—The *Bulletin de Correspondance Hellenique* (Jan.–July, 1894), gives a short note on the most recent excavations at Delos. MM. Ardaillon and Couve have begun to clear the port and the docks and to study the private houses. The plan is to complete the study of the sacred city by that of the commercial quarter. Its remains are considerable, for Delos was, in the second and first centuries B. C., the main emporium of the East Mediterranean, a rich and luxurious city. Several *chantiers* have been opened: (1) along the shore, in order to find the line of the wharves, the ends of the jetties, to ascertain the arrangement of the basins, and to clear out the warehouses; (2) at the end of the Portico of Philip, where there must be a landing-place, the starting-point of the Sacred Way leading to the Propylæa; (3) in the interior, near the sacred lake, with the object of completing the excavation of the *Schola Romanorum*, of the agora of the citizens of Beyrouth, and in order to find the sanctuary and meeting-place of the Herakleistian Tyrians.

Already success has been attained near the Portico of Philip, where inscriptions and traces of structures have been found. Along the wharves, storehouses, streets and squares are coming to light. Several houses have been cleared, in which have been found marble columns, mosaics, elegant stuccoes, painted decoration.

DELPHI.—M. HOMOLLE'S LAST REPORT.—At the close of the summer M. Homolle sent a further report to the Ministry of Public Instruction on the excavations carried on during the spring, beginning on March 26. Three "*chantiers*" were in operation: that of the temple of Apollon; that of the treasury of the Athenians; and that of the Helleniko.

Temple of Apollon.—The results of this part of the work have been excessively disappointing. Not a fragment of sculpture has been found that could belong to gables, frieze or metopes. What had been previously so attributed was done erroneously. The only explanation is that the Roman emperors, after the time of Pausanias, had the sculptures removed, piece by piece, with great care. The end of cornice published by Curtius and Pomtow remains unique. Only some lion heads that served as gargoyles have been found in fragments. Fragments of tufa are fairly abundant, but poor considering

the size of the monument and the insufficiency of the conclusions to be derived from them. There are: (1) *drums of columns* of two types, channelled and not channelled. In several cases they have fallen in line so that the restoration of the columns at least will be certain. (2) *Capitals*: only ten, and none intact. They do not recall in any way, in thickness of projection, of abacus, or in outline of echinus, the types of the sixth century. The lines, so nearly straight as to have hardly any bulge, are of a thinness and dryness that would lead one to assign a date much later than even the fifth century. Were there but a single example one might regard it as a restoration, but all are alike, and it is hardly possible to believe in a total reconstruction unmentioned by any author. (3) *Triglyphs and metopes*. Judging from the few remaining pieces, only one of which is whole, these two members were united in one block. That found near the S.W. corner bears the trace of a large oblong shield, more than a metre high, recalling the Gallic shield. Pausanias mentions such offerings, but as suspended from the epistyles.

As for the Ionic columns which have been so commonly attributed to the temple, they can have nothing to do with it. There is no warrant for confusing the orders in the temple, and these columns are not only not of sixth century style, but differ so one from another that it seems strange any one could regard them as all belonging to one monument.

The ground-plan of the temple is clear, but it is somewhat difficult to reconstitute it with strict precision. Nothing rises above the foundations, and except two surfaces some fifty metres square at the two ends of the temple, all the courses of the walls have been carried off below the pavement: not a column is in place, nor even a plaque bearing trace of channelling.

It stood on a three-stepped stylobate, was peripteral in form, with six columns on the front and very long sides, the number of whose columns can hardly yet be determined. No hypothesis will be proposed until the fourth side of the temple has been entirely cleared, for it seems to be the best preserved and may yield some decisive indications on the intercolumniations. The temple appears not to have had any internal colonnade. It is arranged in harmony with its character of temple-oracle, like that of the Didymean Apollon. The pavement is interrupted toward the centre by a wide and deep depression, whose length has not yet been fathomed. It is not due to any accident, because the sides are regularly stoned up. It is evident that here is the adyton. This cavity has not yet been cleared of all the objects of which it was full, such as: Archaic inscriptions (offering of the *dekate* by the *kafusis* after a war; signature of an Athenian (?))

artist Diopithes); Greek and Graeco-Roman inscriptions (dedication of Philandridas; decrees of proxeny, etc.); fragments of bases of statues and small marble monuments; architectural details of tufa and marble.

The passages which MM. Foucart and Pomtow regarded as subterranean galleries, are everywhere beneath the building. There is no proof that they were used at any time as passages. They were, on the contrary, only the intervals between the piers connected by walls, upon which the entire structure was made to rest: this was their only use.

It is a peculiar anomaly that there was an almost complete lack of offerings before the facades and the south side of the temple: none were found in place and very few overthrown among the earth.

It is even difficult to determine the ancient level of the soil. The basement of the temple is so crudely built that it was evidently not meant to be seen, and yet the polygonal wall is neither high enough nor strong enough to have sustained an embankment on a level with the temple; nor would it have borne the thrust of a slope. Besides, ancient fragments have been found below the upper line of the wall and the subterranean aqueduct opens at the wall level. The best solution is to imagine a large narrow square at the level of the top of the wall, ending, on the side of the temple, in a line of high steps, which both hid the rudeness of construction and served to support offerings.

Sacred Way.—Fortunately, East and North the Sacred Way is preserved almost intact. Last year the excavations were carried as far as the altar of Chios, placed on the polygonal wall at the point where the road reaches its top, on the very axis of the temple. It seems to have been the principal altar. It rose from a high base of blackish blue calcareous stone, and was connected with the temple, on whose level it was, by a flagging. The Way turns here to the direction E-W. and becomes horizontal. The position is magnificent at this turn-around, and here the monuments were piled up in profusion against the mountain side. Some of the finest were placed here. Here was found, *in situ*, at the very turn, an enormous base with a dedicatory inscription by Gelon, son of Deinomenes. The offering was a golden tripod and a statue of Niké, the works of the toreutician Bion the Milesian, son of Diodóros. Another base, to the right of this one, preserves the close of a dedication . . . [Δεινομένη]ος ἀνέθεκε . . . ἡμετὰ μῦθας. A third, like it, overturned and broken, bore no inscription. The three sons of Deinomenes had sent gifts to Delphi and perhaps these three bases should be attributed to them, unless it be supposed that the offerings of Gelon alone occupied more than one base: (1) the

Nikê; (2) the gold tripod whose weight—[sixteen talents and] seven minae—would then be mentioned. This dedication is alluded to by Diodoros: it was consecrated on the occasion of the victory of Himera, the very year of the battle of Salamis. In the base is fastened a gabled stile with a bull in relief and with a decree for an inhabitant of the city of Kleitor whose heraldic device this animal is; a dozen other steles are inset around about. A marble bench is placed in front, whence a good view was obtained of ascending pilgrims, of processions entering the temple and of priests sacrificing at the altar.

The ancient level remains unchanged since the beginning of the fifth century, for here were picked up other archaic dedications and a number of important sculptures, among which are the following: Two horses of natural size of archaic style, whose harness proves that they were attached to a chariot: precisely in this neighborhood stood two famous chariots, both gifts of the Kyrenaeans, that of Ammon and that of Battus. Three female figures, dancing, as they hold one another's hands, around a column in the form of the stalk of a plant: they wear a short and floating garment, and a polos of bulbous form and decorated with pointed leaves such as one sees on the head of the dancers of Gjölbaschi. This appears to be the base of a tripod. Then came: male torso, probably of an athlete; youthful male torso, wearing chlamys and leaning on a herm, of the hellenistic period; fragment of a metope representing a woman running, of the same dimensions and style as another representing Herakles and a fallen enemy, found on the opposite front; a marble omphalos covered with its woollen net; numerous fragments of columns *en tige de silphium*, which M. Homolle attributes to the Treasury of the Kyrenaeans.

Back of this point the basement of a small building of the usual form and dimensions of the treasuries, is being cleared. Advancing westward, from the ex-votos of Gelon toward the temple, a fine ancient wall is met, partly built up, partly cut in the rock; then a high wall of small, irregular stones, with niches, traces of stucco and paintings, which includes also enormous masses of rock. This runs parallel to the temple at a distance of some ten metres: neither its use or length have yet been ascertained.

In front of the west façade the diggers have begun to open up the continuation of the Sacred Way, uncovering an enormous circular base, some polygonal constructions and the basement of a small Doric structure in tufa. The most interesting discovery here has been a deposit of terracottas and bronzes. In direct contact with the yellow virgin soil is a blackish and violet stratum very compact and hard, with an occasional admixture of ashes and bone, there were found: tripods (stems, bowls, handles, ornamental figures), paterae, sauce-

pans. With a few exceptions all the terracottas were fragments, and belonged to three different styles: the geometric, proto-Corinthian and Corinthian, which appeared in three very distinct strata. This collection is completed by a very few Mycenæan fragments. The accumulation is not one due to chance, but shows either the presence of an altar or the site of a refuse-heap.

Among the inscriptions found here are: (1) a *Delphic decree*, in response to a letter of King Seleukos, according to the city of Smyrna and the temple of Aphrodite Stratonikis the privilege of the *ἀσυλία*. (2) Fragments of *imperial* letters. (3) Parts of two slabs with the *accounts of the sanctuary* during the years immediately following the peace of 346, under the archonships of Damoxenos and Archon. In one of them are valuable historic data regarding the reprisals exercised against the Phokidians and their accomplices; the overthrowing of the bases bearing the statues of Philomelos and Onomarchos, excluded from the Sanctuary; destruction of horses and statues, doubtless a trophy of the Phokidians, for their victory over the Thessalians. It contains also information on the architectural works which appear to have been carried on in the temple: furnishing and setting up of lion heads, of epistyles, triglyphs, and cornices; work in the *πρόδομος* and the *opisthodomos*; also indications of geographical value and others regarding the body of auxiliary help and the current expenses of the sacred administration, not to mention a geographical list of proxenoi, in great part of the fourth century, completed by later additions, as well as the indications of works of construction divided among a half dozen contractors, of whom the first is an Athenian named Philo.

One base bears the signature of Kresilas of Kydonia, of whom no work had been known to exist at Delphi.

The longest and most numerous texts within and immediately about the temple are of the Roman period and belong to the series of decrees of proxeny or *politeia*. They refer to men of all nations and professions—mainly literary men and philosophers.

Treasury of the Athenians.—Numerous parts of the treasury have been found, proving, contrary to M. Homolle's original opinion, that all four sides were decorated in a similar way with sculptures. Of the pieces of sculpture found; (1) Some were fragments of metopes already known; (2) some were metopes completing series already known; (3) finally come metopes forming a new series. The new series is a *Theseid*. (a) Theseus and the Minotaur. A youth in short chiton, elegantly vigorous, seizes by the head his bull-headed enemy. This composition gives the key for the interpretation of the rest of the series in which the same youth appears; (b) Theseus and Athena. The hero, with raised hand, appears to be speaking to the goddess and

awaiting her orders; (c) Theseus and Kerbyon; (d) Theseus and Periphetes; (e) Theseus and Skiron; (f) fragment with the pine tree of Sinis (?). There seem to be here, therefore, six subjects from the legends of Theseus which would just fill the six metopes of one of the main facades of the Treasury.

One of the sides must have been occupied in common by reliefs of the Geryon series and the Amazonomachy, supplements to the exploits of Herakles and Theseus and suited to accompany them from their combination of human and animal figures. The fourth side is adorned with a series of single combats which M. Homolle has thus far been unable to identify, either singly or collectively. They would suggest scenes from the Gigantomachy were not the gods who took part in the defeat of the giants entirely absent. The sculptures found amount to thirty, which is the precise number of the metopes.

Finally, a horse carved in the round should be mentioned, of larger size than would suit the metopes, and exactly like one discovered last year, but carved inversely. These two formed the upper akroteria of the treasury, at the top of the gables, and each was mounted by an Amazon, symbol of the legendary victories and the recent triumph of the Athenians over the Persians.

Thus the Treasury of the Athenians is now complete, all its decoration having been found. Further courses covered with inscriptions increase also the epigraphic series. Such are: (1) acts relating to the association of the *τεχνῖται*; (2) catalogues of Athenians sent to Delphi for the celebration of the Pythia (theori, pythiasti, exegeti, phylarchs and horsemen, Kosmetes and Ephebes), or having contributed to the offering of the *ἀπαρχαί*; (3) Delphic decrees conferring proxeny, citizenship, or the title of *βουλευτής* on Athenians or foreigners; (4) new musical fragments of which two pieces complete on the right the inscription published in the *Bull. Corr. Hell.*, 1893, p. 608, pl. xxii, and a third large fragment of more than twenty verses joins on to fragment C (*B. C. H.*, xvii, p. 606, fig. 3); all have signs of musical notation.

A section of the Sacred Way being thus cleared it was found, after bending around, immediately in front of the Treasury, to take a right angle assuming the direction W—E which it maintains as far as the east gate of the *enceinte*. It is very wide at this point and forms a kind of square between four monuments: on the N. that of the Athenians; on the S. that of the Siphnians; on the W. that of the Boiotians; on the E. a building still unidentified. Subsidiary roads led from this point eastward and westward. The western road leads in a few steps, on the same level, to another monument in the form of a Treasury, then to a long line of Byzantine walls which appear to be established on ancient substructures as sustaining walls. It passed

above this wall and, in front of a large base uncovered in 1892, it joined the bottom of the great stairway, ending apparently in a second gate beyond the turn of the Sacred Way, which it avoided.

Treasury of the Boiotians.—This treasury, much smaller than that of the Athenians, rose on foundations of tufa blocks, which belonged to a more ancient structure, apparently of the same origin as the substructures of the Treasury of the Sikyonians, if we can judge by the stone-cutters' marks. The treasury is built of bluish lime-stone of fine quality and in the form of a Doric temple. The identification is made certain by the inscriptions carved on the courses; decrees in favor of Boiotians, and especially of Theban personages; frontier regulations between two Boiotian cities.

There are many names that might be applied to the neighboring monuments, but none are localized so as to make identification at all certain. If the rock of the Sibyl, the *hieron* of the Muses and the Gha are correctly placed by us near the polygonal wall, then the tufa structure overlooking the Treasury of the Athenians might be the *βουλευτήριον*. Other hypotheses would be premature.

Westward, on both sides of the polygonal wall that marks the end of the Sacred Way, have been found houses of late date (Roman and Byzantine), with stairs, well, cistern, domestic altar, remains of stucco decoration, painted terracottas of far earlier date. A deposit of pottery and bronzes like that mentioned above was found under similar conditions, but less important.

Between the Treasury of the Athenians and that of the Siphnians, a few feet from the wall where was found, last year, the Archaic Apollon by an Argive sculptor, there came to light the torso of another statue like it, and of equal dimensions. Here we have the same method of marking the line of the ribs and the middle line of the stomach by simple lines in the form of a reversed anchor, the hairs of the pubs by small incised triangles: same arrangement of hair, bound by a fillet, above which it escapes in puffs, as in the archaic statues of Krete and Arcadia. The two statues are in reality identical, and thus call to mind the Apollons consecrated by the inhabitants of Lipari after their victory over the Tyrrhenians, equal in number to the vessels they had captured.

On the pavement of the Sacred Way lay the top of the base of a statue, in the form of a Doric capital with round and strongly curved echinus. On the front are carved in very low relief and in severe archaic style, two lions devouring a stag. It is a fine specimen of the columns often used in the sixth century as supports of *ex-votos*, as shown by the Akropolis excavations, but it is unique in being carved-

The epigraphic harvest, though abundant, consists entirely of the texts carved in the walls of the treasuries of the Athenians and Boiotians, a base with decrees for the Klazomenians, and stone-cutters' marks and proper names in archaic letters on the substructures of the Treasury of the Boiotians.

The Helleniko.—The exploration of the ground above and below the *Helleniko* wall, so-called in opposition to the *Pelasgikon*, because it is built in regular courses, involved the uncovering of the Sacred Way between the Treasury of the Athenians and the gate of the Temenos.

At the end of May, in front of the large exedra recognized by Pomtow and now completely cleared, there was found another hemicycle, of about the same dimensions, surrounded by a high stone wall built in regular courses, and raised on a high base, which rises more than a metre from the road. A low step surrounds the foot of the wall supporting a course of slabs arranged in arcs of circle and bearing inscriptions. The names of Abas, Akusios, Lynkeus, Perseus, Herakles, appear, together with that of the artist of the statues, Antiphanes of Argos. It is remarkably peculiar that while this signature is inscribed from left to right, all the names of heroes run from right to left: it was evidently desired to give a proper air of antiquity to the members of the ancient royal house of Argos. This monument is the one mentioned by Pausanias in Bk. x, 10, 5, and it gives the key to the surrounding topography.

In front of it was another offering of the Argives, similar in composition, a group of statues representing the *Epigoni*: this is the exedra on the south side of the Way. Next to the *Epigoni*, descending toward the gate, there came: (1) the "Seven against Thebes," also dedicated by the Argives; (2) the Attic group commemorating the battle of Marathon; (3) the Dourian horse, also a gift of the Argives.

Next to the monument of the Argives is a very long structure, analogous except for its rectangular form. A wall of conglomerate, in regular courses, adjoined to the hillside, forms, with two end walls at right angles, a three-sided chamber, entirely open toward the Way, about 25 m. long. A high base, which appears to have had several steps, bordered the Way and partly filled the chamber. One offering only could have occupied so vast a space, and that is the proud trophy of Lysander, which contained some forty figures arranged in several rows at different heights. Its E. end almost touches the boundary wall, which ascends straight up the mountain slope. Therefore the other offerings mentioned by Pausanias at the beginning of his description of the sanctuary must be placed on the other side of the Sacred Way. He says, in fact, that they are opposite the monument of Aigos-Potamos. This arrangement is also in harmony with the

discovery by Pomtow, on the south side, of the dedication of the Tegeans. As for the base of the bull of the Korkyreans, the work of Theopropos of Aigina, it was found some hundred metres from its place, opposite the altar of Chios.

Having reconstituted the Sacred Way from the Argive offerings to the gate of the Sanctuary, let us pass from the same point to the Treasury of the Athenians.

On the left is a large empty space where there remains only an angle of a wall: here the destruction was complete. On the right a small square chamber of similar construction to the Argive hemicycle; then another, half destroyed, between two niches, and a large polygonal sustaining wall. Here must have stood the monument commemorating the victory of the Tarentines over the Messapians, of which a large inscription in letters 10 cm. high, ΔΕΚΑΤΑΝ, is perhaps a remnant.

Treasury of the Sikyonians.—In front of the sustaining wall, and considerably below the level of the route, are the tufa foundations of a structure in the form of a temple *in antis*, or a treasure house. The substructures, which rest at a great depth on the original soil, are composed of architectural fragments re-employed — architraves, doric columns, and the remains of a circular monument. The coursing signs that have been noted on several pieces are similar to those on the treasury of the Boiotians. On the courses of this monument, inside and about, were gathered tufa metopes, works of the VI century representing: (1) *The Dioskouroi and Idas* bringing back from Messenia the oxen they had captured, and which were to be a fatal cause of dissension for them. The names are painted in black beside the figures; (2) *A wild boar*; perhaps part of a subject (Caledonian hunt?) from their legend; (3) *Two horsemen* in front view, and behind them a vessel carrying warriors with shields; in the centre two figures standing, playing on the kithara. The two names effaced except end of one, ΘΑΞ. The horsemen are probably the Dioskouroi, and the subject from the legend of the Argonauts, in which they took part; (4) *A ram*, who appears to have been represented as carrying a figure, doubtless Hellê; this also belongs to the Argonaut series; (5) *The rape of Europa*.

The painted inscriptions do not have the characteristic signs of the Sikyonian alphabet ($\bar{X} = E$); the subjects are not from legends properly Sikyonian; the metopes, also, seem rather large for the monument. Still their good state of preservation and the conditions of their discovery make it out of the question that they could have been employed as material of construction. The tufa capitals found have the severe and somewhat rude beauty of the VI century, and

they also bear no trace of having been utilized as material in a later monument. Notwithstanding difficulties alluded to above, it seems certain that the monument was of tufa, belonged to the VI century, was decorated with sculptured metopes, and was erected by the Sikyonians. The monument which it succeeded could not have been much earlier in date, and has doubtless been overturned by some catastrophe. The sculptures, cut in a tufa of remarkable fineness, are entirely painted; the colors remaining are red, and brown, or black. The attitudes, types, stiffness of garments, the designs that adorn them, all recall the paintings on black-figured vases, as do also the inscriptions that accompany the figures. There is no color on the background.

Treasury of the Siphnians.—A few steps further west there rises, like a bastion, a high square structure which leans at one end against the Helleniko wall and, at the other, on the Sacred Way, dominating both. The lower courses, which are not finished off, were marked by the rising ground and by steps made along the Sacred Way. To the west a platform, sustained by a polygonal wall, formed a small square connected with the Way by steps.

On the species of tower rested a structure in the form of a prostyle temple, with its façade turned to the west, the only accessible side. This also is a Treasure-house and here Pausanias places the Treasury of the Siphnians. This identification is justified by the remark of Herodotos (III, 57) that the treasury of the Siphnians was among the handsomest and richest in Delphi. Now, not only is its position remarkably fine, at the first turn of the Sacred Way, on the corner of a large square, magnificently decorated, at the summit of the enclosing wall, but furthermore, the remains of decorative sculpture—such as the architectural ornaments and the sculptured frieze, show that this monument was erected at a great expense and great search after perfection. I know of no architectural motives that surpass these in gracefulness and firmness of design, in felicitous composition, in clear-cut and elegant execution. Such are the oves, pearl ornaments, and agees that crown the epistyles and friezes, the bands of alternating palmettes and lotuses that frame the door and decorate the *yeïra*. It is the very perfection of archaism at its close. Fragments of this decoration have been gathered up all around the sanctuary, but as complete pieces have been found only around the Treasury of Siphnians, along the four sides, and that the corner pieces lay at the corners, as they had fallen, there can be no doubt about their identity.

At the time of the discovery of the first pieces of the sculptured frieze, consisting then only of processions of chariots and horsemen and a group of three goddesses, it seemed as if the sculptures might

belong to the main temple. This view was quickly made untenable by further discoveries showing a combat of heroes, a gigantomachy, mythological or heroic scenes with gods and goddesses—a far greater variety of subjects, in short, than appears on the Vatican bas-relief which refers to the temple-sculptures. Beside, the relation of the sculptures to the Treasury of the Siphnians became more evident, the more were discovered. The identification was completed by the discovery of a gable which, notwithstanding certain differences of handling, was of the same date as the frieze and agreed in length with the façade of the treasury. The dimensions of the treasury are: North and south sides, 8.90 m.; east and west sides, 6.35 m. The sculptures found are the following:

South Side: (1) Scene of rape; bearded man with woman in his arms gets into chariot; (2) head of woman (fragment); (3) horseman mounted and holding another horse; must have been preceded and followed by others; (4) quadriga, found before, and published by Conze and Michaelis; (5) horseman, similar to No. 3, on angle piece, around corner of which is a group of divinities; (6) female head, already known and published in *Annali* (1861, *tav. d'agg. E.*) All these pieces have remarkable unity of style. The figures on return angle of No. 5 are evidently by another hand, but same hand is seen on west side.

West Side: (1) Woman descending from quadriga, a complete slab; (2) Athena, winged, and with aegis, mounts chariot drawn by four winged horses which are held by Hermes, while to the right a figure advances behind the goddess. This slab is a complete corner piece (N. W. corner) and on the return of the angle are warriors fighting who differ entirely in style from those on W. side and are similar to those on E. side.

North Side: (1) N. W. corner slab: two warriors with corslet over a short chiton, wearing the Corinthian helmet, covering themselves with a round buckler, fight over the body of a third warrior whom one attacks and the other defends. A fourth figure turns to the left toward an enemy who was figured on another slab. (2) Upper fragment of a slab with a warrior fighting an enemy to the right while behind him is a quadriga of which there remain part of the horses, at full gallop, and the driver, who turns around to reach an enemy. This enemy is represented on the following slab, No. 3, and next to him on this slab are two warriors, one with lance and the other with a rock opposed to Hephaistos; and further on two more warriors, one with bare head wielding a lance and the other casting a rock at the head of a warrior, doubtless another god, at whose feet already lies one vanquished enemy. The following scene is partly on this and partly on the next

slab. (4) Two combatants, one kneeling, the other standing, fight Athena. This group is of remarkable beauty; the goddess, shield to shield, appears to cast down her enemies without effort, as she calmly advances, and her calm attitude is in striking contrast to the powerless efforts and contortions of her adversary. Here we certainly have the combat between Athena and the giant Enkeladas. Near her is Hera, who by a movement superbly violent has just cast back her enemy and pierces him with her lance, through his buckler. Zeus, who came after the goddesses, must have been represented standing in his chariot, though both are wanting, though the two usual adversaries, the one with the lance and the other with the rock, still remain.

(5) This complete slab reproduces two scenes and part of a third. (a) Three warriors advance against Apollon and Artemis who are both drawing their bows and against Dionysos, who is armed with a sword. A fourth enemy lies on the ground. (b) A goddess, doubtless Kybele, on a chariot drawn by two lions, robed in a long chiton and wearing as mantle a wild beast's skin, goes, with Herakles, against two enemies. The hero has the lion's skin wound around his neck and extended over his right arm as a buckler. He is about to shoot at a warrior who threatens him with his lance; the second giant is being devoured by the lions. (c) Two warriors, armed with lances, march to left against an adversary who may be represented on the next slab. (6) Corner slab, whose long side forms part of the east frieze. It contains three figures: a man with long hair and pointed beard, robed in a short chiton, follows attentively, with head bent forward, the incidents of the fight, while one hand is extended open over a large *pitheos* and the other closes a collapsed leather sack. Two women are with him who wear a long chiton flattened in *apoptygma*. The man appears to be Aiolos who chains and unchains the winds at will.

East Side: (1) N.E. corner. Around the body of a dead warrior four heroes are fighting for his body and arms: on either side is a four-horse chariot driven by the *hypoxes*, ready to carry the spoil or the defeated one. At the horse's head is a servant. (2) A group of three goddesses seated on stools, talking and observing with curiosity some scene, one touching her neighbor under the chin. The two on the right look toward the left, while the third, Athena, turns toward them to speak. (3) This third slab, at the S.E. corner, continues the assembly of the gods. After a figure of which there remain but the feet and the seat, comes a majestic god on a high-backed throne, with arms supported by a group of a nymph and satyr. This is Zeus. After him, on seats with straight legs, come Apollon, Artemis, Aphrodite, and, on a camp-stool, Ares in his warlike apparel. Zeus looks to the right towards Athena, and the figure on his left, doubtless Hera,

places her hand on his knee. Apollon, Aphrodite and Artemis form a close group in animated conversation and touch each other with the hand. Ares is indifferent and apart.

Gable: Before this east front were found three pieces of a gable which seemed at first far inferior to the sculptures just described, dryer, harder, and, in particular, more awkward. But its defects are especially due to the difficulties of sculpture in the round and to the restrictions of the triangular space. There are sufficient common characteristics to attribute it to the same monument: the differences are no greater than between the two halves of the friezes, and nothing can be more interesting than these variations of processes and style in contemporary and contiguous sculptures. The subjects also are related. The measurements agree with the size of the treasury. The sculptures represent the dispute for the tripod between Herakles and Apollon. Athena stands in the centre, seeking to appease them. Leto, behind her son, attempts to draw him away. Two female figures on the left, and a woman and a warrior on the right, are walking toward the ends of the gable, turning their backs on the principal figures. The figures both on the right and left are preceded by two prancing horses, before which, on the left, are two figures in bad preservation, one kneeling and the other reclining, for which there are no corresponding figures on the right.

A remarkable peculiarity of this gable is that the lower part of the figures is in relief, while the torsos rise in the round from the tympanum, which is deeply cut away. It is a tentative intermediary stage between the gable in relief (*e. g.*, Herakles and Hydra on Akropolis) and that with free figures. The proportions are in general heavy, the forms short and thick, the outlines dry and angular, the relief flat and hardly modelled even in the parts in the round; the muscularity is summary and exaggerated, the attitudes constrained. The composition, well conceived in the centre, then becomes disjointed, and the diminution in size of the figures, the further they are from the centre, is quite childish. Still, every one of these defects is to be found, in a modified form, in the frieze, even in the part most advanced in style, and common traits show artists belonging to the same school more or less belated in archaism. There is resemblance in types, costumes, heavy proportions and excessive muscular development. It will easily be seen that this is not an Attic work. Rather is it connected with the archaic sculptures of Asia Minor and the islands, or with those of Southern Italy and Sicily, being derived from an Ionio-insular or a Peloponnesian school.

Only one of the subjects of the frieze can be interpreted with certainty, the Gigantomachy on the *north* side, which is also the best pre-

served and most complete part, being about 8 m. long. On the *east* side the Assembly of the Gods appears to be divided into those for and those against the Trojans, and the combat they are watching is probably that around the body of Patroklos. On the *west* the subject is obscure and the missing parts are many. It would seem that the two goddesses with their chariots stood symmetrically one at each end. One of the two scenes, with the winged Athena returning to Olympus, may represent the apotheosis of Herakles.

There are abundant traces of painting on the backgrounds (blue), the hair (red), the details of the costume (red body color, red-blue borders, designs), the arms (blue-green helmets with red border), chariots, horses, lions (red, blue and green). The colors will soon disappear, but they were noted most minutely immediately after the sculptures were unearthed. Also to be remarked are affixed metal pieces (blades, arrows, *etc.*). The resemblance to the most careful of the black-figured and red-figured vases of the severe style is most striking.

These sculptures are certainly unique. They date between the last years of the sixth and the first years of the v century. Henceforth the history of sculpture cannot be written nor the schools of the vi century studied without this frieze.

The caryatidæ already noticed (see JOURNAL, 1894, No. 2, p. 301) are of the same period, and were found on the same site, but though it is possible it is hardly probable that they belong to the same monument.

We will here add to Mr. Homolle's report the judgment of Mr. Gardner in the last issue of the *Journal of Hellenic Studies* (xiv, 1, p. 228): "The subjects of these [friezes] seem to be a group of seated gods, a gigantomachy, and a Homeric battle. They show a vigor and naiveté of detail, a freshness of conception, and a delicacy of execution such as can find no parallel elsewhere, except, as M. Homolle has pointed out, in Attic vases of about 500 B. C. To this period they must be assigned, and to Attic art, as is proved by the similar style of the treasury of the Athenians; in a dedication of the Siphnians this is probable enough. The color, here also, is brilliantly though only partially preserved. The group of seated divinities reminds one of the east frieze of the Parthenon; and although it of course falls short of the dignity and perfection of the Phidian work, it has a grace and charm of its own. And in the gigantomachy there are scenes, one particularly of a goddess in her car drawn by lions who tear a giant that opposes her, which seems almost to anticipate the boldness and originality of Pergamene art. All the decorative details of this building, the carved mouldings, cornices, *etc.*, are cut with a depth

clearness and delicacy that can be matched nowhere, except perhaps in the Erechtheion. It is simply a revelation of what decorative carving can attain to.

A supplementary *chantier* was opened in June-July in the space comprised between houses 138 and 169, outside the sanctuary, which seemed to be free of ruins, and thus suitable as the site for the Museum structure to be erected. Here was found a Greco-Roman tomb, dug in the ground, walled-up, with a staircase, two vaulted chambers of good construction and several sarcophagi. It had long ago been pillaged.

The excavations have brought to light a very complicated series of structures resembling dwelling houses, a large aqueduct, wells and a number of tombs cut in the yellow earth which is easy to work but liable to crumble. There were gathered up, near the aqueduct, a charming bronze statue, much oxydised, in the Doryphoros type, and a beautifully preserved archaic bronze Apollon, 40 cm. high, of excellent style. From the wells came numerous fragments of pottery and bronzes: from the tombs, which were nearly all empty, a red-figured vase of the iv cent., a lot of forty Mycenaean vases, almost all of Furtwängler's form 50. They are glazed, decorated with parallel lines and geometric ornaments; the finest has two octopi superbly drawn, accompanied by geometric ornaments. By their side was a broken sword, a dagger and a fibula of a type represented thus far by but a single specimen.

At the time when the report was being closed there had just been discovered at the temple *chantier* a Roman head in perfect preservation and excellent style, a bronze figurine, and a large marble statue of Antinous, lacking only the arms, of exquisitely refined finicalness of execution and with surface intact.

Work was to be continued up to the winter. M. Homolle is assisted by M. Convert, who has charge of the technical work; by M. Bourguet for epigraphy; by M. Perdrizet for figured monuments, and by M. Tournaire for architectural drawings and notes.—*Bull. Corr. Hell.*, 1894, pp. 175-196; *Chron. des Arts*, 1894, Nos. 28, 29; *Berl. phil. Woch.*, 1894, No. 40; *etc.*

Latest News.—During the excavations of the last few weeks several new statues have been found. One represents a woman, and is of an ancient style of art, but very well preserved. Another in fragments, without head and legs, represents a man of heroic size, and is of the Alexandrine period. It is intended by the Greek government to establish a separate museum at Delphi for the objects discovered there.—*Athenæum*, Sept. 8.

A CHIAN DELEGATE.—In the *Mittheil. Inst. Athen.* (1894, pp. 194–202), A. Nikitsky writes of *Chios in the Delphic Amphiktyony*. He supports the opinion of Theodor Sokoloff, that the word *Chios* in the lists in decrees of the Delphic amphiktyony is not the name of a person, but means *Chian*, showing that Chios sent a delegate.

ELEUSIS.—In the *Mittheil. Arch. Inst.* (1894, pp. 162–193, pl. vii), D. Philinos publishes nine *Inscriptions from Eleusis*. No. 1 gives directions for building a foot-bridge of stone across the 'Πεῖρον τὸν παρὰ τοῦ Ἀστῆως, the pond nearest Athens on the way to Eleusis. The characters are those in use before Eukleides. Above the inscription is a relief representing Athena shaking hands with a male figure (the Demos of the Eleusinians), Demeter and Kore. No. 2 is a fragment of a letter from some great Roman (possibly Hadrian) to the γένος of the Eumolpidae. No. 3, in letters of the time after Eukleides, is inscribed on a base once no doubt belonging to a choragic monument. It reads:

Γ[ένος] Τιμο[κλέ]ος Ἰ[σ]τ[ῆ]ρος Ἀ[ρ]χ[οντος]
 χορηγόντες κῶμωιδῶς ἐνίκων.
 Ἀριστοφάνης ἐ[δίδ]ιδασκεν.
 Ἐτ[έρ]ανικη τραγωιδῶς.
 Σοφοκλῆς ἐδίδασκεν.

No. 4 is a part of a decree in honor of Sosikrates, son of Miltiades, of Sphettos. The archon is Philinos, hitherto unknown, the date near the end of the third century B. C. No. 5 is part of a series of builders' contracts. A ditch is to be dug and a foundation wall to be laid in it, upon this columns are to be placed. The archon is Diotimos, 286 B. C. No. 6 contains directions for parts of columns belonging, apparently, to the stoa of Philo. It begins: Θεοί. Εἰς τὸ ἱερόν Ἐλευσινάδε τοῖς σφονδύλοις τῶν κίωνων τοῦ Προστώιου εἰς τοὺς ἄμους πόλους πῶσαι καὶ ἐμπόλια χαλκᾶ. Poloι may be pegs and empolia clamps. No. 7 is a fragmentary dedication to Demeter and Kore. It is inscribed on a small column upon which the real offering stood. The inscription reads from right to left, but a few letters are reversed. No. 8 is a small fragment of an account. No. 9 is a new publication with additional fragments of Ἀρχ. Ἐφ., 1888, p. 49=CIA. iv, 225.

EPIDAUROS.—SCULPTURES.—In the *Mittheil. Arch. Athen.* (1894, pp. 157–162, pl. vi) F. Winter writes of *The Sculptures of Epidauros*. Timotheos, the chief artist of the sculptures of the temple of Asklepios, was a contemporary of Skopas, and probably the teacher of Leochares, as Skopas was of Bryaxis. The Leda in the Capitoline Museum is compared with a Nereid from Epidauros, and the original is claimed as a work of Timotheos. The Ganymedes of Leochares was probably inspired by the Leda.

INSCRIPTIONS.—In the Ἐφημερίς, Ἀρχαιολογική (1894, pp. 15–24), P. Kavvadias publishes twenty-two *Inscriptions from Epidauros*. These are

all short, consisting for the most part of dedications expressed in the briefest way.

STATUE OF ASKLEPIOS.—In the *Ἐφημερίς Ἀρχαιολογική* (1894, pp. 11-14, pl. 1) P. Kavvadias publishes and discusses *Reliefs Representing the Chryselephantine Statue of Asklepios in Epidauros*. One relief is that published, *Ἐφ. Ἀρχ.* 1885, p. 48, Brunn, *Denkm. d. gr. u. röm. Skulptur*, pl. 3. The other is very like it, though less well preserved. It was found in Epidauros in 1886. The throne is more elaborate, having an arm ending in a sphinx. The god wore a wreath, and his feet are not crossed. In some particulars this relief is more like the statue by Thrasymedes than is the other, in some particulars less like it.

ERETRIA.—**HEAD BY EUPHRONIOS.**—In the *Ἐφημερίς Ἀρχαιολογική* (1894, pp. 121-128, pl. 6), P. Hartwig publishes and discusses a *Head of a Negro with the Inscription Λέαγρος καλός*. The head is a vase from Eretria, the mouth of the vase being added on top of the negro head. The head is made by pressing the clay with the fingers into a mould consisting of two parts. The color is brownish-black, certain parts showing the red of the clay. The inscription is scratched on the lip of the vase. The name Leagros is found on vases of the end of the sixth and beginning of the fifth century, signed by Euphronios and others. It may be that this most lifelike head is the work of Euphronios.

A LEKYTHOS.—In the *Ἐφημερίς Ἀρχαιολογική* (1894, pp. 63-68, pl. 2), B. Staes publishes an *Eretrian Lekythos*. The painting on this vase differs from the usual types, which are enumerated. The painting encircles the whole vase. A stele is represented, and beside it a tomb. Before the stele stands a female figure, by the tomb sits a youth with green chlamys lying across his knee. A female figure approaches the stele bearing a tray with taeniae, grapes and a pyxis. Behind the seated youth is uneven ground, and a hare is seated upon an elevation. The colors used are red, brown, green, blue and violet.

EUROPE.

ITALY.

Prehistoric and Classic Antiquities.

ROMAN COINAGE AND EARLY OCCUPATION OF VENETIA.—Sig. Paolo Orsi has, in the *Not. d. Scavi* (1894, pp. 259-69), an interesting study on a find of Roman coins of the III century B. C., at Caltrano. This town occupies a strong position, which, in olden times, must have been of great strategical importance, at the feet of the Alps, guarding the crossing of a river and the communications between the plain of Vicenza and the rich table-land of Asiago. Here some workmen, in

preparing the foundations of a new church tower, came upon a jar of coins of which there must have been over a thousand. About 350 came finally into the hands of the curate of the place, and these were carefully cleaned and studied by Sig. Orsi.

These coins are all Roman Victoriati, of the third century B. C., all of one fundamental type, but varying greatly, not only in signs and symbols, but in size and form of the head of Jove in different compositions of the reverse, different lettering of the exergue, etc. Some of these variants are evident signs of different emissions, while others simply show that different stamps, with but slight variants, were used for the same emission, in order to hasten the work. In so far as their state of preservation is concerned, they may be classified as follows:

| | | | |
|-------------------------------|----|------------------------|-----|
| 1—Almost fresh from the mint, | 2 | 5—Used, | 118 |
| 2—Very fresh, | 7 | 6—Much used, | 110 |
| 3—Fresh, | 20 | 7—Worn away, | 37 |
| 4—Somewhat used, | 56 | | |

An examination of the weight of these coins shows that it is not always in proportion to the apparent state of preservation of the coin as the average weight of the classes marked used and much used is greater than that of the fresh and very fresh. This confirms the theory that the apparently poor preservation is due, not so much to the wearing away of individual coins by circulation as to the worn-out condition of the matrix.

In a circle of stones not far from the first find of coins, a dozen coins of Massalia were found near a skeleton. The five examined are hemidrachmas of silver, of ancient forgery, and exceedingly rude style. They belong to the Massaliot system, reduced under the influence of the Roman Victoriati, *i. e.*, after 217 B. C., and they belong apparently to a North Italian manufactory of the close of the III century, whose products are found throughout upper Italy. The Victoriatus was first introduced shortly after the conquest of Illyricum (228 B. C.) in a form suited for use as a fraction of the tridrachma, as it corresponds to $\frac{2}{3}$ of the Roman denarius and $\frac{1}{3}$ of the Illyrian coins. It thus represented a sort of Romano-Illyrian drachma. Its original weight was 3.41 grammes, but this first emission must have been restricted and short-lived. When the denarius was reduced, in 217, the Victoriatus was also reduced to 2.92 gr. and made equal to the Corinthian-Attic drachma: on this base it had a very wide issue, and served as provincial coinage or its prototype. They sometimes bear monograms of *monetarii*, but never complete names of magistrates. Toward the end of the sixth century U. C., the coining of money is entirely concentrated in Rome, and all names of provincial mints disappear

from the Victoriati. No names of monetarii appear before 217, when they are given in monograms or initials; but at the close of the sixth century *U. C.* the names are spelled in full, and the victoriatus tends to disappear.

Viewed in this light, the Victoriati of Caltriano may be classified as follows:

| | |
|---|-----|
| Examples of issue of 228 or shortly before, weighing over 3.30 gr., | 14 |
| “ “ “ “ 217, weighing less than 2.95 gr., | 126 |
| “ “ issues between 228 and 217, weighing between 3.30 | |
| and 2.95 gr., | 210 |

Further chronological light is cast by a few examples with signs of mint or monetarius; thus:

| | |
|-------------------------------|---------|
| 3 are coined by Matienus, c. | 234 |
| 2 “ “ Metellus, c. | 217 |
| 8 “ “ Cn. Bebius Tempilus, a. | 217-214 |
| 3 are from the mint of Vibo, | 218-189 |

Historical considerations may prove under what circumstances these coins were hidden, during the last years of the third or the first of the second century *B. C.* In 191 *Cisalpine Gaul* was entirely occupied by the Romans: the foundation of Aquileia in 183 | 82 signalized the permanent installation of the Romans also in the Venetian province; the conquest of the Histri and Liguri in 178 completes the conquest of Italy. The conquest of the race of mountaineers along the edge of the Venetian plain was, however, another and slower matter, and remains somewhat obscure. Their raids from their Alpine fastnesses into the plains were frequent and dangerous, and were answered by frequent Roman expeditions against their strongholds. It seems, therefore, probable that during the earliest decades of the second century *B. C.* a Roman expedition into the mountains of Asiago resulted in the destruction by fire of the native village (=Caltrano) then existing at the passage of the river Astagus, and that on the first rumors of the Roman approach this treasure was concealed. The owners never returned, for the position was one which the Romans would need to hold for the protection of the plain.

The prevalence of the victoriatus as a circulating medium among the tribes of the Venetian fore-Alps is proved by finds in the tablelands of Sette Comuni Vicentini, Bostel di Rotzo, Tredici Comuni Veronesi at S. Anna del Faedo.

The tomb, with the Massalian semi-drachmas, precedes but slightly the period of the destruction of the village.

ANCONA.—In Piazza Cavour some ruins and tombs have been brought to light in digging for the foundations of the new palazzo

delle Ferrovie. It is known that a church of S. Silvester existed here which was ruined in 510, and that the monastery of S. John Baptist was built here by the Benedictines in the XI century, and was almost destroyed when it was abandoned in 1464. On the hill just above the present square stood the old ch. of St. Stephen, the primitive cathedral of the city. The tombs and ruins recently found belong to the early Christian and mediæval, and are probably connected with these structures.—*Not. d. Scavi*, 1894, 234-7.

S. ANGELO IN FORMIS.—A TILE WITH AN IMPORTANT GRAFFITO.—Carl Langeister has a note in the *Scavi*, (1894, pp. 284-7) on a remarkable inscription scratched upon a tile now in the Museo Campano in Rome. He reads it: N · D · E · C | *Idibus Iulius finge* | *bipedas* VXXXI | *Actum Casilino* | *Modesto II et Probo cos.*

The date is 228 A. D. The *bipeda* is a kind of tile. The inscription therefore says that Celer must make on July 15 5031 bipedal tiles. As a single workman could make only from 137 to 260 tiles per day, this is probably intended as a joke. Prof. Barnabei thinks that it is to be interpreted that Celer had a contract to deliver that number of bricks on July 15. *Actum Casilino* instead of *Casilini* is vulgar usage, and the only other inscription on which this name (Capua) has been found has the same locative form.

This graffito is particularly interesting for the history of cursive writing, as no dated example of this time was hitherto known. Similar *nessi* had been known from the wax tablets of Dacia, written in the time of Marcus Aurelius, but here are ligatures different in many respects. The entire character of the cursive writing is essentially different, and shows the development during the intervening century.

AREZZO.—TERRACOTTA ORNAMENTATION OF A TEMPLE.—Comm. Gamurrini again calls attention in the *Scavi* (1894, pp. 276-7) to the site just outside the ancient Arretium, where the Teatro Petrarca is now being built. He had already noted that here flourished the pottery establishments Annia, Memmia and Rasinia, which came to an end with the fall of the Republic; that here passed a street bordered with trench tombs covered with tiles, and that certain terracotta fragments had come to light which led to the supposition that some small temple had stood on this site.

A number of terracottas decorated in relief, recently given to the Museum, and found here during the work on the theatre, have afforded new material, although as is always the case, no systematic archaeological investigation was allowed or was possible.

In 1872 there was found here an acroterium in terracotta, with the head of a man in relief, painted red, and at the same time a small marble cornice and a Corinthian capital. Two years ago the capital

of a Corinthian marble pilaster came to light, which must have belonged to one of the *antæ* of the tempietto. The terracottas that appeared to belong to the structure are so diverse in style as to point either to the existence here of two small temples or to a reconstruction or restoration of one. Among them is a relief showing a Nereid on a marine monster, with traces of white, red and blue coloring. The art is rude and decadent rather than archaic; and the figures are moulded and not modelled. The group was either fixed upon the metope or portion of frieze with nails or was walled in: it thus differs from other Campanian or Latin terracotta metopes. It is to be concluded that this Nereid formed part of a frieze of Nereids bearing the arms of Achilles, a subject represented on vases and sarcophagi. The temple may therefore have been consecrated to Vulcan, the maker of the arms of Achilles, all the more that about it were the terracotta factories with their furnaces, and that the temple of Vulcan is known to have been situated outside the city.

Beside this fragment of the frieze were found an acroterium with the head of a nymph, a piece of ornament with lilies and roses and crowned with isolated palmettos, also fragments of tiles.

IMPORTANT DISCOVERY OF VASES.—The Direction of the Museo Civico of Arezzo has undertaken new researches in the garden of Santa Maria in Gradi, within the city where the beautiful ware of Marcus Perennius was discovered in 1884. Complete success crowned this attempt. Examples were found of the superb ware of Nicephorus, Cerdo, Pylades and Tigranes, as well as fragments representing the products of the last period of Perennian manufacture when Bargas and Cresceno took part in the work.

Certain scenes are most interesting and quite novel; such are the wares decorated with caricatures representing comic scenes. Nothing of the sort had yet been found. Details will be given in another issue.—*Not. d. Scavi*, 1894, p. 93.

BOLOGNA.—PREHISTORIC STELE.—Among fragments handled in the storehouse of the Museum there was recently found a fragment of a stele of the Villanova period, with remains of a human figure and geometric decoration, all incised. The ornamentation consists of a border formed of a double maeander partly interrupted at one point by a rosette. Above this border is a broad space in which it is possible that there were originally a number of figures. Only a part of one remains, a nude man with right arm raised. For the maeander compare the stele of S. Giovanni in Persiceto (*JOURNAL*, IX, p. 132); for the rosette the Grabinski Arnoaldi and Caprara steles (*ibid*); for the figure, compare the Caprara stele.—BRIZIO in *Not. d. Scavi*, 1894, pp. 270-1.

FIESOLE.—ARCHAIC ETRUSCAN STELE.—Prof. Milani writes in the *Scavi* (1894, p. 116): "I have been able to secure for the Central Etruscan museum at Florence an important monument found some years ago near S. Ansano, in the commune of Fiesole. It is a sepulchral stele, of *macigno*, 40 m. high, .32 m. and .29 m. wide and .10 m. thick, on which are carved in low relief two well-preserved figures of archaic style. A bearded man (perhaps portrait of deceased), with moustache; his body half covered with a mantle, and wearing curved boots. . : his left hand is open and in his right he holds a *kantharos*. In front of him stands a youth in a similar mantle, with nude feet, who holds in his left an oinochoë and acts as cup-bearer. The art and style are of the VI century: cf. *Not. d. Sc.*, 1889, p. 152, 183.

MONTEPULCIANO.—CONTENTS OF A TOMB.—A hall-tomb, which had fallen in, was accidentally found and contained a number of interesting objects. Among the bronzes was: (1) a game of Kottabos, having on top the monstrous kneeling winged figure of *Tuchulcha* the Etruscan *Charun*, whose nose is beak-shaped and whose cap is surmounted by two animal's ears and two goat horns; (2) two candelabra, exactly alike, like those of the *Museo Gregoriano*, I, pl. liii, 4, surmounted by a youth holding a horse, upon a channelled shaft, supported on three eagle's claws; (3) two *stamnoi*, with finely chiselled mouth (*Mus. Greg.*, I, pl. iv, 5); (4) another pair of *stamnoi* with handles rising from a palmette; (5) a patera *umbellicata* decorated externally with most delicate leaf-work, while the interior has a rosette in the centre surrounded by dolphins. The other bronzes are less interesting. The bottom of a Kylix is important merely as fixing the date of all the objects at the close of the IV century, B. C.—*Not. d. Scavi*, 1894, pp. 237-41.

PAVIA=TICINUM.—ROMAN BRIDGE.—In consequence of the extreme lowness of the water in the river Ticino, Dr. Taramelli was able during the summer of 1893, to study a pier, the lower part of which remained beneath the present mediæval bridge of Pavia. This pier is all that remains of the Roman bridge, the rest of which was destroyed or used as material at the time of its reconstruction in the Middle Ages. The Roman pier is perfect in form and structure and far superior to the heavier mediæval piers. Dr. Taramelli's belief, confirmed by a section of ancient arch still lying in the water, is that the entire Roman bridge was of stone-work, like those of Rome and Verona, and not partly of wood as was so often the case. He believes that it remained to a late period and that it is referred to as the *pons vetus* in a XII century work (*De laudibus civitatis Papiae*) which is particular in mentioning its stone piers and arches. The present bridge was built in 1351-54, after the old bridge had fallen through, between 1330 and 1351.

Topography of the ancient city.—Dr. Taramelli notes that the mediæval bridge has exactly the same position and direction as the ancient; that as it lies at the end of what is now the main artery of the city, the Corso Vittorio Emanuele, it is probable that this street follows exactly the line of the main street of the ancient Roman city. Furthermore the plan of the mediæval city, which has hardly been altered, is in general of far greater regularity than is usual, and this leads to the conclusion that it substantially follows the lines of the ancient Roman streets. As a matter of fact the city which the Romans built, fortified and embellished never was involved in the general ruin of Italy. The disasters that befel it from the Goths and in 1004 were but very partial, and the Lombards and Franks as well as the later German emperors favored and enlarged the city. The core of the city, within the innermost of the triple circuit of walls, was always regarded as the most ancient and during the Middle Ages preserved several of its Roman arched gates.—*Not. d. Scavi*, 1894, pp. 73-87.

ROME.—A NEW MUSEUM.—The opening of the halls of the archaeological warehouse between the Colosseum and the church of S. Gregorio took place on May 7. Here had been gathered from year to year a considerable mass of objects coming from the excavations. These have now been classified and arranged by the Archæological commission. The building was erected for the purpose between 1884 and 1890. The arrangement is due to Prof. Lanciani, who explained it in his address at the opening ceremonies.

The first hall contains a prœmium to the study of Roman antiquities; that is, the materials of construction and decoration used by the ancients and samples of the various methods of constructing. Here is the richest existing series of stamped bricks and of transmarine marbles; samples of the art of the potter, marble cutter, modeller, mason, smith, wall painter and mosaicist; examples of architectural ornament, doors, windows, baths, cauldrons, heating apparatus, etc.

In the next two halls are the funeral contents of the very ancient tombs of the Esquiline anterior to or contemporary with the walls of Servius Tullius. Its importance for the beginnings of Roman civilization has been shown by Dressel, Pigorini and De Rossi, nor is there any other collection that can compare to it. Here are the two terracotta funeral cases imitated from the trunk of a tree sawed in two and hollowed out, thus going back to the original wooden prototype found on the borders of the lake of Gabii in 1889. Interesting also are sections and contents of the Esquiline wells (*puticoli*) into which were thrown the bodies of slaves and animals; mouths of sepulchral wells; cinerary urns of stone and terracotta; tombs painted after the Etruscan fashion; both hand-made pottery and Etruscan or Italo-Greek vases;

imported Oriental and Egyptian objects especially of glazed ware; objects of the bronze or iron age. In order to demonstrate how true is the tradition of the Alban origin of the founders of Rome, the contents of the early Alban are placed by the side of the early Roman necropolis. The collection is to be increased by the addition of further tombs that lie beneath the soil on Via delle Sette Sale near S. Martino: they will be transported entire.

Hall iv contains inscribed and carved monuments of the Republican period; among which are especially to be noted the series of votive figured terracottas recently found near the aedicula of Minerva Medica, and described on this page. In hall v are the figured marble sculptures, statues, heads, busts, reliefs, among them the well-known altar of Verminus, found in 1876 in Piazza del Macao. The last hall illustrates mainly the Roman aqueducts and contains the richest existing series of inscribed lead pipes, cippi of the Anio Vetus, the Marcia Tepula and Giulia, pipes of the Marcia cut in stone 2200 years ago; fountain genii; fountains of various shapes; a rostrum of the fountain built by Nero on the edge of the pond of his *domus aurea*, found in the Botanical gardens where this museum building is situated; a pump; regulating keys; models of *piscine limarie*; basins of fountains in terracotta, metal and marble, &c.

The entire collection is but what could not find place in the Capitoline museums, of which it is really the surplus and overflow.

VOTIVE OBJECTS OF TEMPLE OF MINERVA.—Near the Via Buonarroti there has been found a large accumulation of fictile objects, mostly coming from the *favissae* of the temple of Minerva Medica, which stood in this part of the Esquiline, where similar votive deposits have been found during late years. Among them are 8 entire statuettes, 43 headless statuettes, 42 fragments do., 90 heads, 11 parts of body, 2 masks, 11 groups of the three seated Eleusinian divinities.

Together with these were many small vases and other parts of funeral deposits, of rude manufacture and of crude black earthenware, evidently from ruined tombs of the archaic Esquiline necropolis.

Among the terracottas are three of unusual interest: a helmeted head of the goddess; a fragment of a lamp with her name scratched in archaic lettering; and a youthful female head, with hair just beginning to grow again in ringlets, probably a votive offering made *restitutione sibi facta capillorum*.—*Not. d. Scavi*, 1894, p. 278: *Bull. Arch. Com.*, 1894, p. 145.

DRAWINGS OF ROMAN ANTIQUITIES AT ETON.—Prof. Lanciani is publishing a series of papers calling attention to a very important collection of drawings of Roman antiquities now in the library of St. Mary's College at Eton. It was made in Rome during the first thirty years of the

past century, by Dr. Richard Topham, of Windsor. It includes 2936 drawings, distributed in 31 volumes, 18 of which contain 1849 drawings in red and black chalk; 6 contain 383 water-colors and paintings; 7 contain 703 prints. The printed books form the richest and choicest series of those published during the xvi and xvii centuries. As for the drawings, there never was made a more complete collection of figured monuments of Graeco-Roman art, and is the more interesting that it was made before the dispersal of so many collections. The epigraphic collection is of but moderate value.

In the first article Prof. Lanciani treats merely of the drawings of figured antiquities in the museums of Rome (and some in Florence), and he mainly translates Topham's catalogue prefixed to each volume. The drawings in red and black chalk are all exquisitely executed. Among the artists Giov. Domenico Campiglio easily ranks first for grace and delicacy of shading. He became later head of the *Calco-grafia* Camerale. Other artists are Giovanni Bigatti, who executed the drawings from Villa Mattei, and Calderi those from Villa Medici. Lanciani calculates that Dr. Topham must have spent about \$17,000 for this part of his collection.

In Lanciani's article the drawings are enumerated under museums alphabetically arranged. The series is closed by three miscellaneous volumes marked: (1) statues; (2) bas-reliefs; (3) miscellaneous.

On fol. 74 of the volume of bas-reliefs, there is a drawing of part of a mosaic pavement in the baths of Caracalla. This important and known work is reproduced on pl. ix of the *Bullettino*. A last volume in the form of an album, contains a number of fine drawings of triumphal arches. On fol. 63 and following, is a letter of B. Lodington to Lord Vere Beauclerke, dated from Tripoli of Barbary, June 12, 1726. It speaks of drawings of a triumphal arch (of Cyrene?) which he had ordered done, while the admiral was at Port Mahon, at Minorca. There are three drawings of great importance and the monument is described.

In another article Prof. Lanciani will publish the catalogue of the ancient paintings and mosaics of Rome, drawn and water-colored by Francesco Bartoli, son of Pietro Sante, commissioner of excavations in the time of the Albani pope.—LANCIANI, in *Bull. Com. Arch.*, 1894, pp. 164-87.

THE ATTITUDE OF THE XVI CENTURY TOWARD ANTIQUITIES.—In his address at the opening of the new museum in the Botanical Gardens, on March 7, Prof. Lanciani entered largely into the question of the attitude of the Rome of the xvi century towards the relics of its great past. He has been writing a history of excavations and researches in Rome, to accompany his great Plan of the ancient city, and has had access to

many groups of documents of which he here utilizes a small part. He shows how the communal authorities in the XVI century displayed both enthusiasm and care toward classic antiquities, seeking as far as possible to care for and purchase what was found, prop up imperilled structures, prevent threatened vandalism. Their finances were so straightened as to prevent much good that they would otherwise have been glad to accomplish. They had had to contend with a wholesale movement for the destruction of ancient Rome, in order to use its material in the construction of churches and palaces. Prof. Lanciani recounts some details of the barbarous attempt of Sixtus V to demolish the old structures. Patents were given by wholesale authorizing demolitions. It was only through a popular uprising that the destruction of the tomb of Cecilia Metella was prevented after it had actually commenced. When later, under Clement VIII, S. John Lateran was being modernized, it is interesting to note how the bronze was secured for the decoration of the famous columns of the high altar. The contractor undertakes a journey through Etruria and ransacks its tombs, returning to Rome with many hundred pounds of small artistic bronzes, which, together with portions of the Pantheon beams, were put into the crucible.—*Bull. Arch. Com.*, 1894, pp. 147-57.

MALE STATUE.—Near the side-door of S. Andrea delle Fratte, in Via Capo le Case, a beautiful marble male statue has come to light. It is entirely nude, and lacks head, arms and lower limbs. It is slightly over life size and in its present state measures 1.25 m. in height.—*Not. d. Scavi*, 1894, p. 279.

ROME.—PART OF AN ANCIENT CALENDAR.—In connection with the clearing of certain rooms of an ancient Roman structure of early imperial time on the Via dei Serpenti, a piece of a marble slab was found on which was inscribed a fragment of an early Roman calendar. Parts of two columns remain: on the left are the announcements for Sept. 11-22: on the right those for Oct. 12-20. The lettering is in two sizes, the larger letters reproducing the very ancient *tabulae fastorum*. This calendar contains a number of interesting peculiarities.—*Not. d. Scavi*, 1894, pp. 242-7.

THE CURATORES OPERUM PUBLICORUM.—The *curatores aedium sacrarum et operum locorumque publicorum tuendorum*, which is the complete title of the senators placed in charge of public places under the Empire, were two in number, and were selected at the beginning among those of prætorian and consular rank. At first their office was the same, each having equal supervision over both public buildings and temples, but it would appear that later there was a division of labor and one became the *curator operum publicorum* and the other *curator aedium sacrarum*. This division seems, however, to have been *de facto* and not *de*

jure, as they continued often to work in common under the common title. The division *de jure* had, however, taken place in the time of Diocletian for the *Notitia Dignitatum* states that both were *sub dispositione præfecti urbis*; namely, the *v. c. curator operum maximorum* and the *v. c. curator operum publicanorum*. Of the four *curæ* or administrations whose foundation is attributed by Suetonius to Augustus, the *cura viarum* was established in 20 B. c., the *cura aquarum* in 11 B. c., the *cura alvei Tiberis* not later than 6 B. c. Mommsen regards the fourth of these, the *cura operum publicorum*, to be the latest of all. Sig. Cantarelli, however, in his monograph in the *Bullettino*, regards it as the earliest in date, believing Suetonius to have enumerated them in chronological order. The monograph just mentioned publishes the series of these curators of monuments, and is rendered necessary, in the writer's estimation, by the fact that the list published in 1881 by Klein in the *Rheinisches Museum* not only contains errors, but comes only as far as Diocletian, and contains some lacunæ which have been filled by recent epigraphic discoveries. The following is the list of names given by Cantarelli :

1. *Q. Varius Geminus* : under Augustus. C. ix, 3306. The only curator designated in an inscription with the full title given at the head of this note. He comes at the close of the reign of Augustus.
2. *Torquatus Novellius Atticus* : under Tiberius : from Milan : was proconsul in Gaul under Tiberius and Caligula. C. xiv, 3602.
3. *A. Vitellius* : under Nero : was *curator* between A. D. 60 and 68 before becoming legate and then emperor. Suet. *Vit.* 5.
4. *Cn. Pinarius Cornelius Clemens* : under Nero, at close of reign : Klein, 4.
5. *T. Flavius Sabinus*, nephew of Vespasian, was curator under his uncle. C. vi, 814.
6. *C. Julius Proculus* : under Trajan, after being consul in 104. C. x, 6658.
7. *P. Metilius Secundus Pontianus* : under Hadrian. Was governor of Numidia in 123. C. xi, 3718.
8. *L. Minucius Natalis Quadronius Verus Junior* : under Hadrian. Held this office after consulate and before his governorship of Africa, *i. e.*, 127-130. C. ii, 4510.
9. *L. Burbuleius Optatus Ligarianus* : held office after his consulship in 135 and his legation in Cappadocia in 138. C. x, 6006.
10. and 11. Names unknown : under Hadrian. C. vi, 1854 and 858.
12. *Ti. [Julius] Severus* : under Antoninus Pius. C. I. Gr. 4033.
13. *M. Outius Priscus, etc.* : under Antoninus Pius. Was consul suffete before taking this office : legate of Dalmatia in 147.

14. *L. Rufus Lollianus Avitus* and *T. Statilius Maximus*: year 146. C. vi, 1008.
15. *P. Savius Julianus* and *C. Popilius Carus Peto*: year 150. The former was the compiler of the *edictum perpetuum* and was consul in 148, his colleague Peto being consul suffecte in the same year. C. vi, 855.
16. *Cælius ... illianus Maximus*: year 159.
17. *L. Dasumius Tullius Tuscus*: under Marcus Aurelius. Author of *Senatusconsultus Dasumianus*: consul under Antoninus Pius. C. xi, 3365.
18. *M. Iallius Bassus Fabius Valerianus* and *C. Julius Commodus Orfitianus*: year 161. The former was consul suffecte shortly before 161, and together with his family embraced Christianity, a fact of special interest. C. vi, 1119^a.
19. *M. Servilius Fabianus Maximus*: under Marcus Aurelius. Cf. *Bull. Arch. Com.*, 1891, pp. 124-5. Was consul before occupying this office, after which governed Moesia, 161-169. C. vi, 1517.
20. *Mæcius Rufus*: year 166. Confused by Klein with the Mæcius Rufus who was proconsul of Bythia in 79. C. vi, 360.
21. *M. Claudius Fronto*: year 167. Distinguished in Parthian War, 166. Consul suffecte, 178. C. iii, 1457.
22. *Quintus Antistius Adventus Postumius Aquilinus*: year 169. His inscription found in prov. of Constantine, Africa.
23. *T. Asuelli Marcianus*: year 175. C. vi, 3702.
24. *Arsenius Marcellus*: year 181. C. vi, 861.
25. *M. Valerius Bradua Mauricius*: under Commodus. Was consul suffecte in 191. C. v, 7783.
26. *Seius Superstes* and *M. Fabius Magnus*: year 193. C. vi, 1585^a.
27. *T. Arrius Bassianus*: year 199. C. vi, 1352.
28. *C. Julius Galerius Asper*: under Septimius Severus. Prætor before and consul after this office. C. xiv, 2505.
29. *P. Cati Sabinus* and *Aelius Romanus*: year 210. Was urban prætor, twice consul, once before and once after this office. *Bull. C. viii*, 80.
30. *Cæcilius Aris* and *Paulinus*: year 214. *Bull. Arch. Com.*, 1884, p. 8.
31. *L. Annius Italicus Honoratus*: under Elagabalus. Cf. *Bull. Arch. Com.*, 1891, p. 118. C. iii, 6154.
32. *T. Clodius Pupienus Pulcher Maximus*: under Alexander Severus, son of Emperor Pupienus (?) C. xiv, 3593.
33. *Clodius Pompeianus*: year 244. Kaibel, *Inscr.*, 1045.
34. *L. Aelius Helvius Dionysius*: under Diocletian. Was prefect of Rome in 301: proconsul of Africa in 298. C. vi, 1673.
35. *Valerius Comazon*: year 299. Kaibel, *Inscr.*, 1026.

36. *Q. Flavius Maesius Egnatius Lollianus Mavortius*: under Constantine. Well-known personage under Constantine, Constantine II and Constans.

Beside these, there are a few of uncertain date: (1) *Niger et Corvinus*; (2) *L. Pomponius Gratus*; (3) *Aurelius C...*; (4) *Fabius...*; (5) Unknown; (6) *Vibulius* (?)

TERRACINA.—**TEMPLE OF JUPITER DISCOVERED.**—Immediately above the town of Terracina a bluff rises abruptly, overhanging town and sea, and on a plateau, in part artificial, was a structure whose massive arched substructures have been much studied and admired. They have been generally regarded as part of a palace or praetorium of Theodoric the Goth.

Recent excavations have proved what was believed by more than one archæologist, including myself, that these substructures did not belong to the late period of the Goths, but to the best Roman period, that is, the age of Augustus or earlier. The ground plan of an important temple above these substructures has been laid bare, and there is no doubt that it is the famous temple of Jupiter Anxur. We defer until our next issue a full account of the discoveries with illustrations.—ED.

TIVOLI-TIBUR.—**TEMPLE OF HERCULES.**—An inscribed cippus has recently been added to the Museo Nazionale of Rome, which appears to have belonged to the famous temple of Hercules at Tibur. It reads: *P(ublius) Fulcinius Vergilius Marcellus, praef(ectus) fabrum, trib(unus) mil(itum) leg(ionis septimae) Gem(inae) Felicis, praef(ectus) equitum alae Parthor(um), subcurator aedium sacrarum et operum locorumque publicor(um), subpraef(ectus) class(is) praet(oriae) Misensis, curio p(opuli) R(omani) sacris faciundis, Herculi Victori.*

Two holes at the top show that the cippus supported a statuette of Hercules Victor, the protecting divinity of the ancient Tibur, to whom this statuette with its cippus was a votive offering. The giver, P. Fulcinius Vergilius Marcellus, had not had, up to the time of this gift, a particularly brilliant career. His main titles are legionary tribune and prefect of an *ala*.—*Not. d. Scavi*, 1894, pp. 283-4.

VENICE—**HISTORY OF A CRETAN INSCRIPTION.**—Dr. T. Ricci, who has been making during the past year or more a specialty of Cretan inscriptions, has made an interesting discovery in connection with the famous Cretan inscription in St. Mark's at Venice. Having detached it he found that three of its sides were decorated with a finely-preserved frieze in the style of the XIII century. He found that in reality the slab had been before 1882 in the façade where it must have been placed before 1275. The inscription must, therefore, have been transported to Venice from Constantinople or Krete on the triumphal return of

Doge Dandolo in 1204. This proves that not it but another copy of the treaty between the two cities formed the basis of the well-known Venetian MS. copy of the original—*Not. d. Scavi*, 1894, pp. 232–3.

VERONA.—THE ROMAN THEATRE.—It had always been known that in Roman times Verona possessed not only an amphitheatre but an important theatre, situated at the foot of the *colle di S. Pietro*, and extending thence to the banks of the Adige. Between 1834 and 1840 Cav. Andrea Monga brought to light several important parts of the theatre and attempted to reconstruct it in drawings. Among the objects discovered by him were statues, friezes, inscriptions, fine marbles and coins important for the history of the theatre. Nothing, however, was published, and after his death, in 1861, the objects discovered lay neglected in a cellar. Hence it is known but to a few that this theatre at Verona is earlier in date than the amphitheatre, and important for both historical and archæological reasons.

At the close of 1893 Sig. S. Ricci, who is becoming well known as a student of Greek epigraphy, obtained financial assistance of the municipality of Verona in order to carry on further investigations and to photograph more important objects found in the area of the theatre since 1757. Tentative trenches were dug between Nov. 29 and Dec. 15 with remarkable success, proving the urgency of systematic and complete excavations for the uncovering of the entire area of the theatre and its grandiose substructures.

Sig. Ricci has obtained the permission to use the inedited notes and drawings of Cav. Monga, and will soon publish a monograph with historic introduction under the auspices of the *R. Deputazione Veneta di Storia Patria*.

The attempts were made in five places, and were only carried far enough to prove the existence of the theatre at different portions of its circuit.

1. Between piazzetta S. Libera and piazzetta del Redentore, in continuation of the scena and E. end of orchestra: excavation showed vertical slabs, and back of them wall which here follows curve of cavea.

2. In cavea, towards river, opposite entrance, three steps were found in place; also six steps of one of the *scalaria* giving access to the *cunei* and *præcinctiones*; also first half step of cavea. Then the entire scalarium was uncovered.

3. In the centre of piazzetta di S. Libera the trial excavations proved that the first half step and the three lower rows for the *subsellia* are continuous throughout the semi-circle. Here came to light the opening and part of the course of a fine *euripus* or canal, in splendid preservation, 1.55 m. high by 1.03 m. wide, with stone slabs on top and bottom. Beginning at this east end, the euripus was cleared

for a distance of 16 m. It was ascertained to continue to a further length of 21.15 m., always following the curve of the cavea: at a distance of 37.50 m. it is joined by the section already discovered by Monga toward the Adige. The point of departure discovered in the piazzetta di S. Libera is not, however, the ancient opening of the euripus, which extended in a straight line a little further toward the Adige and then continued at right angles to itself in the direction of the piazzetta del Redentore, joining the section there already discovered.

4. On the vicolo di S. Libera it was possible to study the substructures of the cavea in tufa blocks, and above them the wall *a calcestruzzo* which sustained the subsella.

5. The most productive trench was the last dug along the west front of the theatre. Here comes to light one of the side walls of the stairway with its outer cornice. It is built of tufa, and the façade is decorated with enormous columns, above which is a broad cornice.

These various trial trenches have given a better knowledge of the substructures, architectural sections and construction, and led to the discovery of very important architectural members.

The objects already referred to as discovered by Monga in his excavations have been transported to the former convent of S. Gerolamo. Among them are to be noted the following pieces: Four busts crowned with laurel and vine that must have belonged to two decorative hermae: apparently of Greek marble and fine workmanship. Two represent the youthful types and two the adult types of Dionysos and a satyr, in evident contrast. There are several portions of the imperial throne: a sphynx and part of another, that may have formed part of the *spalliera*. To the *spalliera* and *bracciale* belong some Greek reliefs of extreme delicacy and beauty, representing the head of a ram and that of a cock. The *spalliera* ends in a charming little satyr. Part of the other half of back and arm is still walled into the Museo Filarmonico (No. 417). Another fine piece is a torso of great beauty, which has been restored as a caryatid. There are, beside, two colossal marble statues, of which many pieces have been found at different times. One of these is in the type of a satyr, and rests upon its right knee [as in the figure in the theatre of Dionysos at Athens.]

Innumerable fragments of circular ornaments, such as *gorgoneia* in a rayed and decorated circle, have been found. A number of the reliefs found belong to the class of *oscilla*, of which some specimens are preserved in the museum at Naples. Such has been the destruction of the delicate gems of sculpture that but few have been preserved entire, though each fragment is worthy of study and illustration. One of these double scenes has been preserved entire, and a second has been put together again almost completely. The former is, so to

speak, a *pseudopelta*, whose moon-shaped ends represent affronted griffins, as is the case also in Naples. In the field is, on one side, a combat between a gladiator and a tiger, and on the other a sphinx holding with its right paw a body, whose head, with other human remains, appears further on. The second *oscilla* has representations of satyrs allusive to theatrical scenes.

There are also numberless architectural fragments of both Ionic and Corinthian orders; cornices, capitals, columns, plinths, simas, *etc.*; and also a great variety of exquisite Oriental and African marbles that served as revetment to the parts of the theatre that were visible. The above were discovered not only by Cav. Monga, but also, in a different locality by Sig. Gian Maria Fontana.

Finally there are fragments of mosaics, terracottas, painted walls, balnear amphoræ, terracotta acroteria and autefixes, epigraphic fragments of various periods.—*Not. d.Scavi*, 1894, pp. 223-9.

VISENTIUM-BISENZIO (NEAR CAPODIMONTE).—The new exploration of the Visentian necropolis, referred to in the *Scavi* for 1892, p. 404, was carried on, partly at *la Palazetta*, where the earliest excavations of the ancient Visentium, or Visentia, took place (*Scavi*, 1866, *etc.*) and partly in the *contrada Polledrara*, not far from where the third primitive group in this important necropolis was found.

The first sepulchral group or cemetery, with ossuaries of primitive type and cabin-shaped urns, was discovered in 1885, by carrying the excavations below the burials in tufa cases. The second group, also of primitive character, but with tufa cases for inhumation alternating, at the same level, with Italic wells, was formed in the lowest section of the Visentian necropolis, almost at the lake's edge on the piana di S. Bernardino. This cemetery, independent of the first, and bounded by a circle of stones, was accurately and completely explored by Pasqui in November, 1886 (*Scavi*, 1886, pp. 177-205). Therefore, the investigations in December of that year were carried on to the south of S. Bernardino, at *la Polledrara*. Here was found the third cemetery with alternating trench and well tombs, similar to that of S. Bernardino, also carefully described by Pasqui in *Scavi*, 1886, pp. 290-314.

The new investigations of 1892 were carried on about 400 m. from the cemetery of S. Bernardino, on a site called Porto Madonna. Here was found by Sig. Brencisaglia a fourth primitive cemetery, which he noticed in the *Scavi* for 1892, pp. 404 sqq. In April Prof. Milani visited the site, and having had some sample tombs excavated in his presence, found that this cemetery of Porto Madonna corresponded to the others, except that there were no inhumations alternating with the well-tombs, all of which were on the same level and very close together, at a depth of about one metre. The tomb furniture was

always placed inside tufa recipients, sometimes hemispherical, sometimes almost cylindrical, provided with a cover which is at times rotund, somewhat of the style of the fictile cover of the ritual ossuaries in the shape of a double truncated cone, at times on the type of the helm, at times again, on the type of the roof of the cabin-urns. The steles of the primitive Faliscan necropolis which have more exactly the form of the cabin-roof, and a similar stele found here at Villutium in 1886, prove beyond a peradventure that the ancient Italics intended to give to their necropolis the appearance of a city of the dead, by imitating the cabins, the usual dwelling, not only in the recipients of the mortal remains, but even at times in the object which contained the ritual sepulchral furniture, and at times in the steles which marked, above ground, the tomb of the defunct.

The funerary urns are cabin-shaped. In the example illustrated on p. 125 of the *Scavi*, the cabin-urn has all the details on the roof; the two *capreoli* and the two *cantherii* leaning on the column: these, as well as the eaves of the roof, are peculiarly channeled in imitation of the wood of which, in the original huts, they were made. Among the contents several types are to be noted: (1) *Kyathos* with striated body and handles; (2) ossuaries and other vases decorated with geometric graffiti, such as maeanders, triangles and squares variously arranged (e. g., in checker-board). Many vases are of the Villanova type. One of a very peculiar type is described where the body is striated and the handle formed of a pair of horses, immediately behind whom is a man who holds them captive by reins or flexible bands that seem to cover their eyes. The style is extremely rude.

Later Contents of Tufa Cases.—The funeral contents of the tufa case-tombs of this necropolis were in part known by the descriptions and illustrations of Pasqui in the *Scavi* for 1886 (p. 177 sqq.), and of Helbig in the *Bull. Inst.*, 1886, p. 19 sqq. The tombs of this character lately opened furnished objects of the same character and dating from about the same period with black-figured Greek vases, to be ascribed rather to the VI than to the V century B. C. Two of these tombs were particularly rich in bronzes; one of these is a *Kyathos* of remarkably fine style and decoration. Its handle is decorated in relief with two hieratic figures, probably representing priestesses: between them, seated on the crown of the handle, is a thick-set figure, evidently an Etruscan divinity, probably *Thyestha-Turan*. The vase was probably for libations.—MILANI, in *Not. d. Scavi*, 1894, pp. 123-141.

SICILY.—Dr. Orsi, in this year's archaeological campaign in the province of Syracuse, in Sicily, has explored three localities, viz., some fresh ground in the necropolis of the "Fusco," a necropolis of the

second Siculan period belonging to the city of Thapsos, and the Christian catacombs of S. Giovanni.

SYRACUSE.—The tombs found at the "Fusco" in very large numbers all belong to the most ancient period of Syracuse; and however subject to dispute may be the chronology of that town, Dr. Orsi attributes them to the end of the eighth or the beginning of the seventh century B. C. They contained many earthenware ossuaries of geometric style, some of which recall the Dipylon type; a number of small *lekythoi* of proto-Corinthian style, both geometric and zoomorphic; as well as some vases ornamented either with geometric designs or animals. Amongst the small objects found as gravegoods, were some *scarabæi* in paste, metal *fibulæ* in bone or amber sheaths, boat-shaped *fibulæ* of bronze, which are rarely found in Greek tombs, and a silver necklace with large pearls of discoidal form. Many of the sepultures had been rifled in barbaric times, when the invaders buried their dead in the necropolis, violating the Greek tombs and placing fresh corpses therein without completely emptying the graves of their contents, save those of intrinsic value. The barbarian remains found in this necropolis seem to belong to the fifth to the seventh century A. D.

THAPSOS.—In the necropolis of Thapsos, in the peninsula of Magnisi, a large quantity of pottery, both Mycenaean and of native Siculan art, has been found. But the most remarkable feature of this cemetery is the architectural decorations of the entrances to the tombs, such as are not found in any necropolis of this period. Some objects, as the pearls in paste and bronze arms, leave us in doubt whether they are of Phœnician origin or of genuine Mycenaean make.—*Atthe-næum*, Sept 8.

CHRISTIAN ANTIQUITIES.

CONGRESS OF CHRISTIAN ARCHÆOLOGY AT SALONA.—One of the most unique gatherings in these days of cosmopolitanism, of learning and inter-ecclesiastical comity, was the First General Congress of Christian Archaeologists recently assembled near Salona, on the Dalmatian coast. At this was assembled leading scholars from all Europe, representing the Roman Catholic, Greek Catholic and Protestant faiths, discussing in the best of harmony the problems and perplexities of Christian archaeology and monumental theology. The place of meeting was the historic Spalato, built in and around the ruins and remnants of the magnificent palace to which Diocletian, after his furious but vain efforts to stamp out the Christian religion, retired, and where, in 313, shortly after Constantine and Licinius had, in Milan, issued the proclamation of religious tolerance, he committed suicide. Within these walls it was that Christian scholars from many

lands and tongues assembled to discuss the historic antiquities of the religion, the builder of this mighty palace, the dimensions of which exceed anything of the kind save the immense royal structures of the Orient, so hated. The neighboring Salona is a rich storehouse of early Christian antiquities, and the energetic director of the Museum, the Roman Catholic archæologist, Mgr. Bulic, inaugurated the movement that resulted in the assembling of this the first convention of Christian archæologists ever held. The other Roman Catholic specialists in this line warmly seconded the project, especially Dr. Neumann, professor of theology in Vienna. The Committee of Preparation consisted of eight Roman Catholic scholars, together with the Greek Catholic Dr. Kondakoff, of St. Petersburg, and Dr. Victor Schultze, of the University of Greifswald, the leading Protestant scholar in this line of research. About one hundred participated in the discussions, in which the use of the Latin language predominated, but in which the Italian, German and Croatian were also largely used. Every leading country of Europe was represented except France and England. There were four representatives from Germany, of whom three were Protestants. Among the leading speakers two were Protestants, namely, Professor Schultze, who spoke on the necessity for establishing museums for Christian archæology, and Professor Bosse, of Kiel, who spoke on photography as an aid for archæological research. Mgr. de Waal presided at the Convention, but the two leading Roman Catholic scholars, namely, de Rossi, of Rome, and Kraus, of Tübingen, could not be present. One of the pleasant features of the Convention was a banquet given by the Bishop of Spalato to thirty members of the Congress from abroad, to which, also, all the Protestants present were invited. The city of Salona also gave an official banquet to the visitors, and entertained all, irrespective of confessional status, in a royal manner. The Convention joined in sending telegrams of congratulations to the Pope and to the German Emperor. The Congress adjourned with the benediction of the Bishop, to meet in second convention in Ravenna.—*N. Y. Independent*, Oct. 18.

The Congress for Christian Archæology at Spalato passed a resolution at its closing plenary session for the publication of a work on the Christian inscriptions in Austro-Hungary and in Bosnia. It also expressed a wish that Christian archæology should be made a matter of instruction in the theological faculties of the universities and in classical seminaries. The next Congress is to be held in 1897 at Ravenna.—*Athenæum*, Sept. 8.

LUCCA.—*LOMBARD DOCUMENTS*.—G. Simonetti studies in the *Studi Storici* (III, 2), the Lombard diplomas in the archiepiscopal library of Lucca. They had already been published by Muratori (*Ant. Med. æv.* I), Barsocchini (*Mem. e doc. per servire alla Storia di Lucca*), Troya (*Cod. dipl.*

long.), and others. These diplomas date from A. D. 685 to 744 and number 150. They are often of importance for the history of art, as when they relate to the foundation of churches and monasteries.

ROME.—EAGLE-SHAPED GOLD FIBULA.—One of the last pieces of work accomplished by De Rossi was an article on a gold fibula in the form of an eagle which was found in 1888 in a tomb on the Via Flaminia, near the basilica of S. Valentino. This tomb was quite outside the area of the cemetery of the basilica, and evidently was that of a stranger: its structure and its contents were both singular. The tombs of barbarians throughout the north of Europe, especially those of the Franks, belonging to the Merovingian period, contain numerous fibulas in the form of birds, especially eagles. These are apparently the military decorations called *phaleræ pectorales* and were in use especially among the Goths. They are in cloisonné work filled in with garnets or enamel. The example found near Rome belonged evidently to one of the warriors of Alaric or of the Ostrogoths that fought against Rome in the Gothic wars of the sixth century.—*Bull. Arch. Com.*, 1894, pp. 158-63.

ROME (NEAR).—SUBTERRANEAN CEMETERY ON MONTE MARIO.—The last number of the *Bullettino di Archeologia Cristiana* comes to me, two months after Comm. De Rossi's death, edited by his old friend and faithful secretary Prof. Gatti. Its publication will not be continued (see p. 551) as it was personal to De Rossi. Its contents, then, are, together with the edition of the *Martyrologium Hieronymianum*, his literary testament, and we will make our summary particularly full.

"A discovery made during recent years has led me to study the subterranean cemetery called of *S. Onofrio in campagna* because it is situated a short distance beyond the modern church of that name on Monte Mario, to the right of the present road, near the old Aurelian and Triumphal roads. . . It does not properly belong to *Roma Sotteranea*, for I have fixed its limits within the zone of three miles from the ancient city walls. The site of this cemetery is somewhat beyond this limit . . . and belongs therefore rather to the suburban villages than to the inhabitants of the metropolis," but its interest is none the less for it is but another proof of the great diffusion of Christianity in the first centuries in the neighborhood of Rome.

Its discovery.—The discovery of this cemetery is said to have taken place in 1674 as we learn from the rare book of Carlo Padre-Dio (*Misure delle sette e nove chiese*, etc.,) published in 1677. Its discoverer, Domenico Ricciardi, wrote a treatise regarding it in 1677 (*Trattato del cimiterio nella via Aurelia*) still in MS., in which he stated the cemetery to be that of S. Lucina, in which were buried the Saints Processus and Martinianus, of apostolic times. In a document of 1669 it is

called the cemetery of S. Lucina or S. Agatha and the latter name became the favorite one. The date 1669 proves that the cemetery was known somewhat before the alleged discovery of 1674.

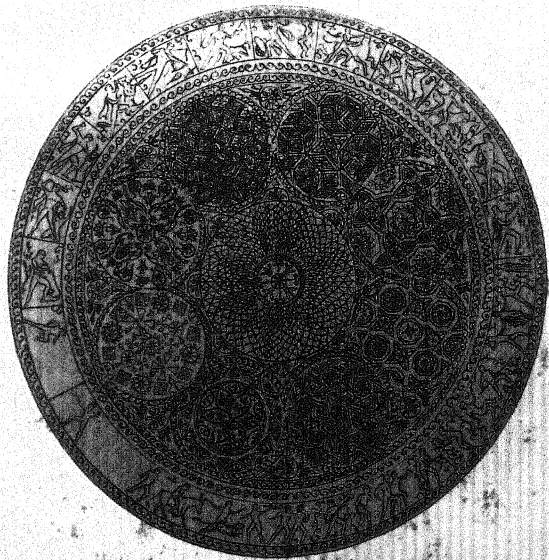
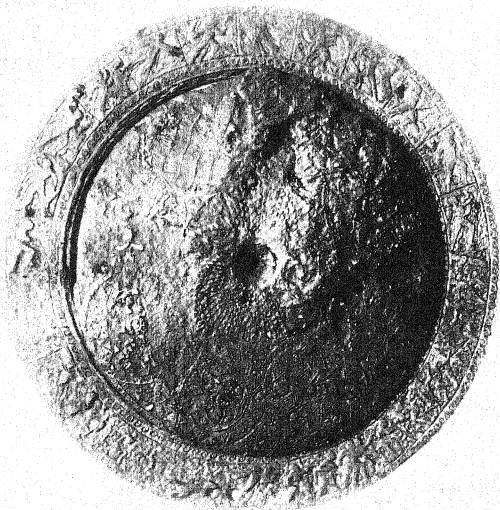
It is needless to waste time in showing that this could not be the cemetery of S. Lucina, which is known to be one of the nearest to the city and not the furthest on the via Aurelia. Comm. Enrico Stevenson proposes to see in it the cemetery of SS. Eusebius, Pontianus, Vincentius and Pellegrinus, whose legend asserts them to be buried in *arenario miliario VI inter viam Aureliam et Triumphalem*. The term *arenarium* describes the cemetery, but its position does not correspond, nor is there any monumental evidence to confirm the identification. "I regard it as extremely probable that the cemetery I am describing belonged to the faithful who dwelt in the *montes Vaticani* near the *via Triumphalis*, and that it belongs to the class of those of the country villages of the classic period in the Roman campagna."

Christian Inscriptions found in the Oratory of S. Croce on Monte Mario.—A notable group of Christian cemeterial inscriptions found, a few years since, in taking to pieces the pavement of the oratory of S. Croce, in the Villa Millini on Monte Mario, appear to have come from this cemetery. This oratory was demolished on account of the defensive fortifications being erected around Rome. It had been built in 1350, restored in 1470, and decorated in 1696. The pavement was found to have been partly made up of cemeterial inscriptions laid face downward. "Armellini, in his *Chiese di Roma*, has published them, but without recomposing the fragments or being able to state from which of the many Roman catacombs they were taken. I shall be able to demonstrate that a number came from the cemeteries of Callixtus, Domitilla, Helena and Pontianus, in consequence of the excavations made there at the close of the xvii century by Fabretti and Boldetti. Perhaps the others, or a part of them, came from the cemetery of Monte Mario, whose exploration was begun about 1670." This group of inscriptions has been transferred to the *lipsanoteca* of the Cardinal Vicar.

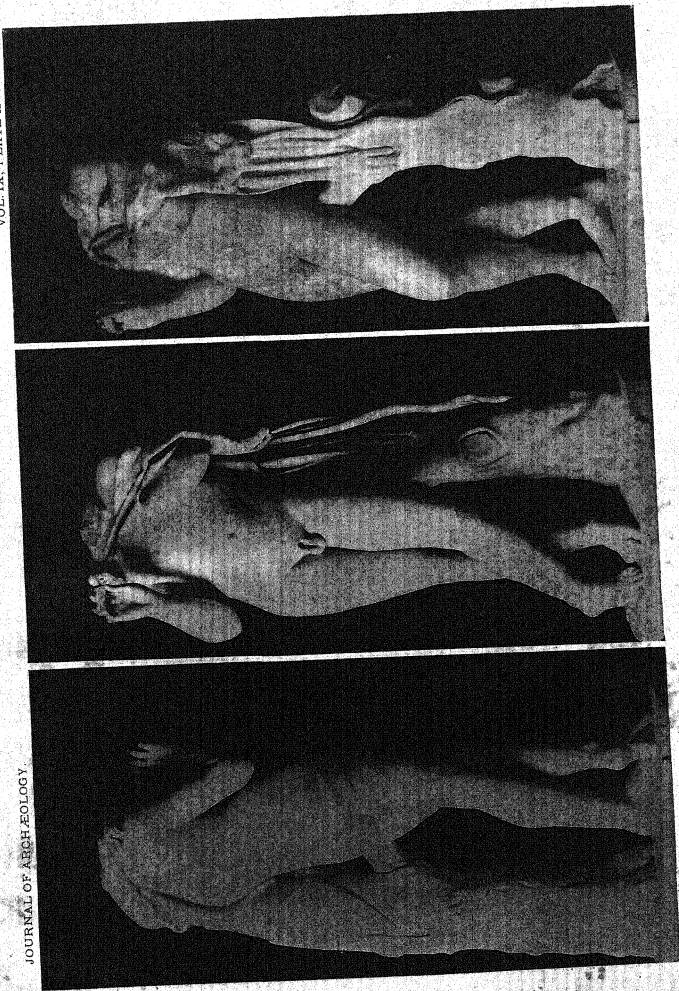
The most important of these inscriptions is one that forms part of a funerary poem originally in the catacomb of Callixtus; a modern fac-simile existing in the museum at Urbino. The inscriptions of unknown provenience are all cemeterial, *i. e.*, used as slabs for closing the sepulchral loculi, and are all, with one exception, Christian. One only bears the Constantinean monogram; all the rest have no special sign of the age of the Peace, but are in a style that seems anterior to it. It is natural to suppose that they come, at least in part, from the neighboring cemetery of Monte Mario.

A. L. FROTHINGHAM, JR.

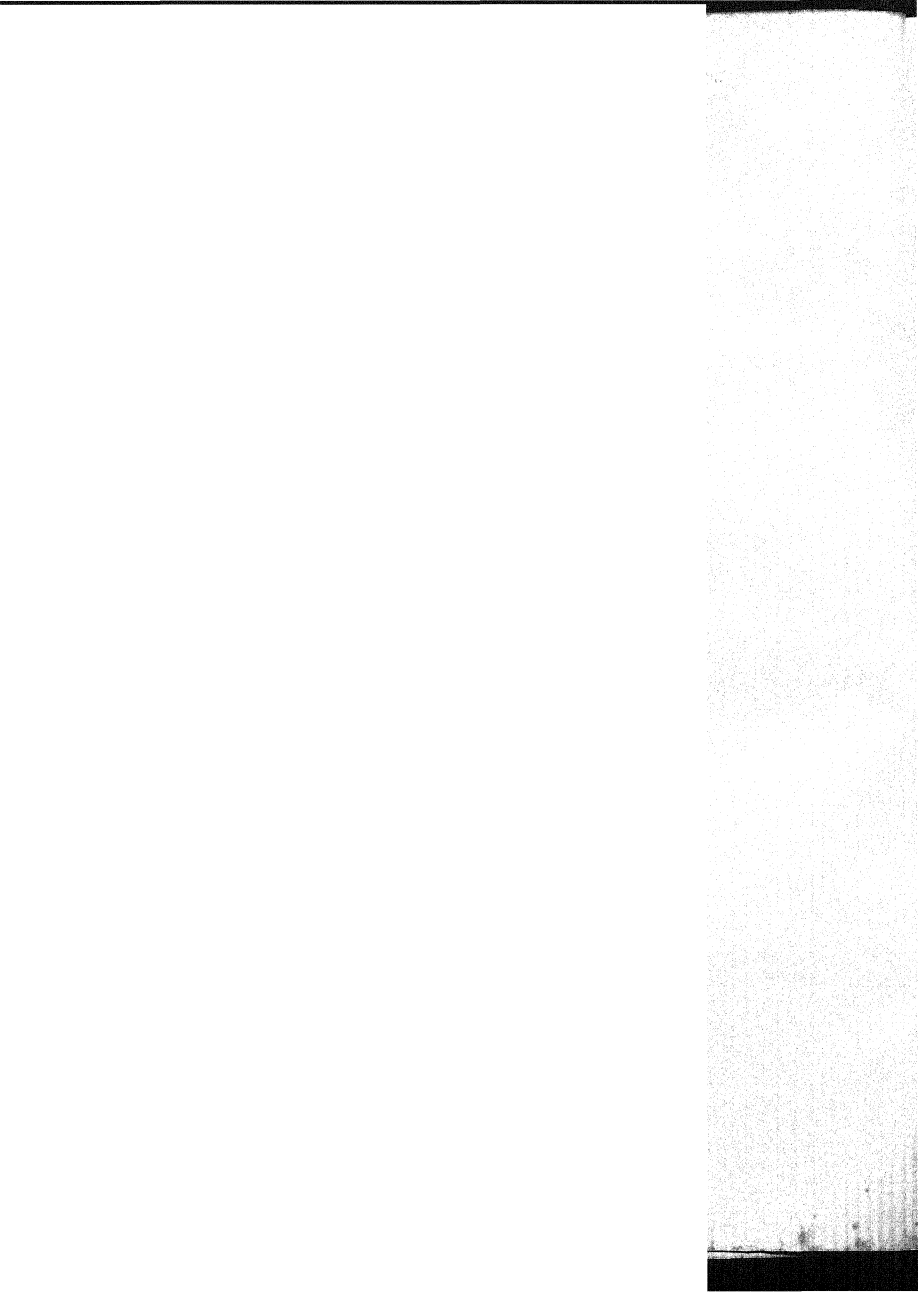
PRINCETON, December 1, 1894.

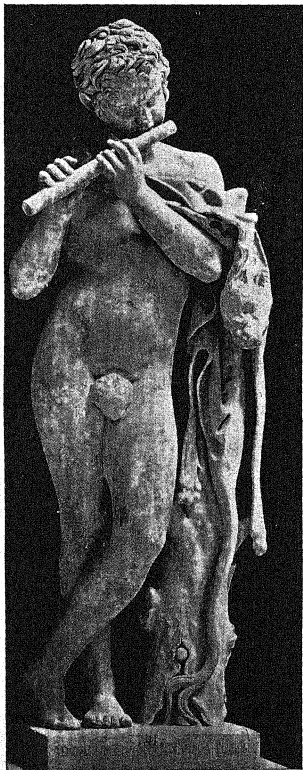


A SILVER MIRROR-CASE IN THE NATIONAL MUSEUM AT ATHENS.



FAUN FOUND ON THE QUIRINAL, ROME.





LUCULLUS FAUN AT THE VATICAN.